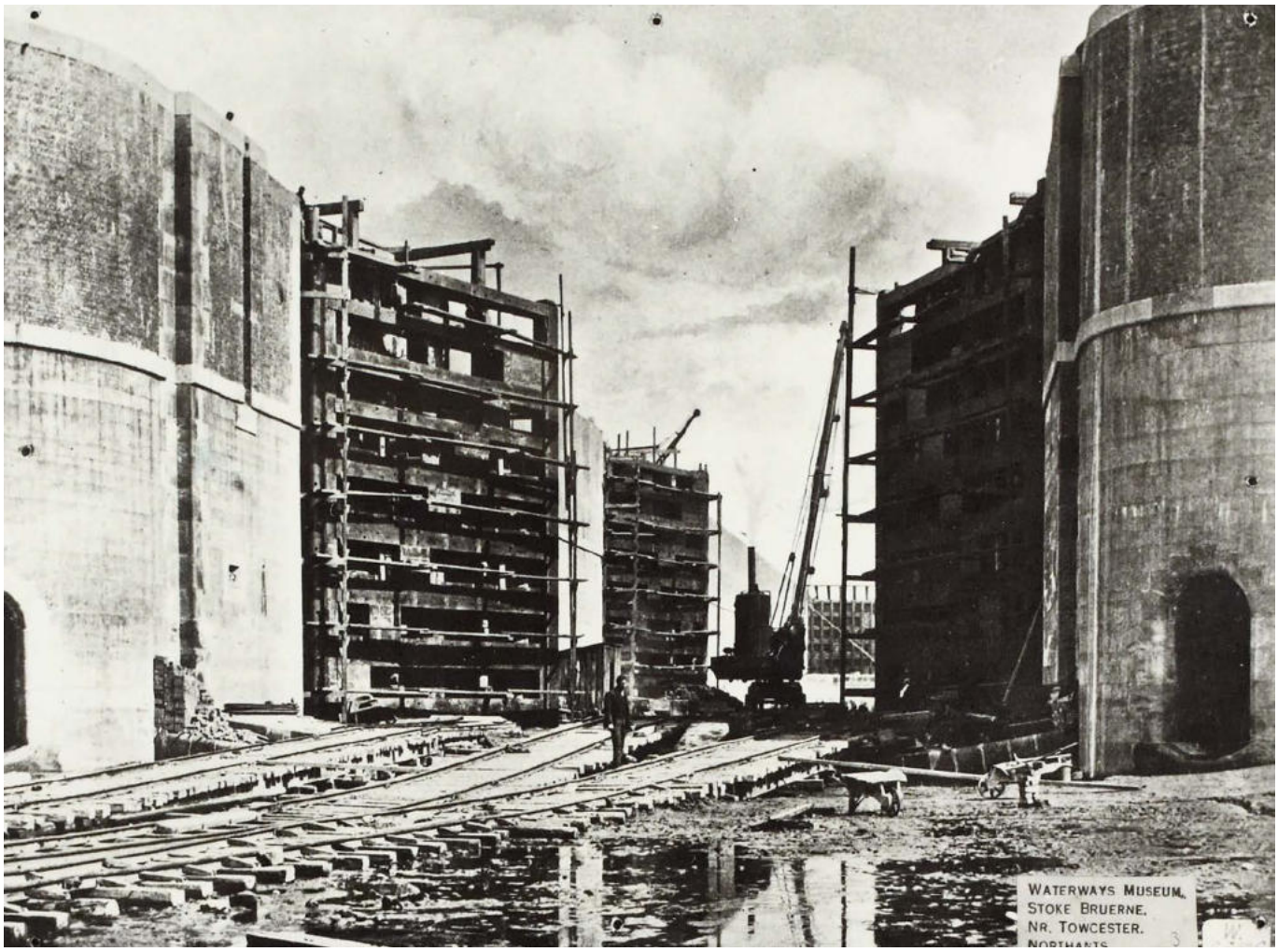
Historic England

Canal and River Navigations National Overview:
An appraisal of the heritage and archaeology of England's present and former inland navigable waterways

Keith Falconer

Discovery, Innovation and Science in the Historic Environment



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Part Two: Appendices

CONTENTS

PART TWO: GAZETTEER

Introduction	1
Key to entries	3
River Adur & Baybridge Canal	4
Aike Beck	5
Aire & Calder Navigation	7
Ancholme Navigation	12
Andover Canal	14
River Arun Navigation, Rother Navigation and Petworth Canal	16
Ashby Canal	19
Ashton Canal	21
River Avon (Warwicks)	24
River Avon (Bristol): see Kennet & Avon Canal	25
Aylsham or Upper Bure Navigation	26
Barnsley Canal	27
Basingstoke Canal	29
Beverley Beck	31
Birmingham Canal Navigations (BCN)	32
Birmingham Canal Main Line	38
Birmingham & Fazeley Canal	42
Dudley No 1 Canal	44
Dudley No 2 Canal	45
Wryley & Essington	47
Walsall Canal	49
BCN Titford Branch	52
Tame Valley Canal	53
Rushall Canal	55
Blyth Navigation	56
Bradford Canal	57

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Bridgewater Canal 58
Bridgwater & Taunton Canal 64
Bude Canal 66
Caistor Canal 69
Calder & Hebble Navigation 71
Caldon Canal (Incl Leek and Uttoxeter Branches) 75
River Cam and associated Lodes 78
Carlisle Canal 80
Chard Canal 82
Chelmer & Blackwater Navigation 84
Chesterfield Canal 86
Coombe Hill Canal 89
Coventry Canal 90
Cromford Canal 92
Croydon Canal 94
Dearne & Dove Canal 95
Derby Canal 97
Derwent Navigation (Yorks.) 99
Dick Brook Canal 101
Donnington Wood Canal 102
Dorset & Somerset Canal 104
Driffield Navigation 106
Droitwich Canal and Droitwich Junction Canal108
Erewash Canal 110
Exeter Canal 112
Fletchers Canal 114
Foss Navigation 115
Fossdyke and Witham Navigations 116
Glastonbury Canal 118
Gloucester & Sharpness Canal 120
Grand Surrey Canal 124

Grand Union Canal 126
Grand Western Canal 146
Grantham Canal 149
Gresley's, the Newcastle and Newcastle-under-Lyme Junction Canals 151
Hereford & Gloucester Canal 153
Horncastle Canal 155
Huddersfield Broad Canal (Sir John Ramsden's Canal) 156
Huddersfield Narrow Canal 158
Ipswich & Stowmarket Navigation 161
River Itchen 163
River Ivel and Shefford Canal 165
Kennet & Avon Canal 166
Ketley Canal 173
Lancaster Canal (including Glasson Branch) 174
River Lark 178
Lee (& Stort) Navigation 179
Leeds & Liverpool Canal (and branches) 182
Leominster Canal 189
Leven Canal 191
Liskeard & Looe Canal 193
Louth Navigation 194
Lydney Canal 196
Macclesfield Canal 197
Manchester Bolton & Bury Canal 200
Manchester & Salford Junction Canal 202
Manchester Ship Canal 204
Market Weighton Canal 207
Melton Mowbray Navigation 209
(Upper) River Medway 211
Montgomery Canal (Llanymynech Branch S U) 212

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River Nene 214
Newdigate (Arbury) Canals and Griff Hollows Canal 216
Newport Pagnell Canal 218
North Walsham & Dilham Canal 219
Nottingham & Beeston Canal (& Nottingham Canal) 221
Nutbrook Canal 223
Oakham Canal 225
River Great Ouse (Bedford) 227
River Ouse (Sussex) 229
River Ouse (Yorkshire) including Ure Navigation and Ripon Canal 231
Oxford Canal 234
Par Canal 237
River Parrett, Ilchester Navigation and Westport Canal 238
Peak Forest Canal 241
Pocklington Canal 245
Portsmouth & Arundel Canal (inland sections) 247
Rochdale Canal 249
Royal Military Canal 253
St Columb Canal 255
St Helens Canal (Sankey Brook Navigation) 256
River Severn 259
Sheffield & South Yorkshire Navigation 262
Shrewsbury Canal (incl Wombridge Canal) 267
Shropshire Canal 270
Shropshire Union 273
Ellesmere Canal 279
Llangollen Canal (English section) 281
Sleaford Navigation 284
Somerset Coal Canal 286
Southampton & Salisbury Canal 289
Staffordshire & Worcestershire Canal 290

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Stamford Navigation Canal and River Welland 294
Stourbridge Canal 296
Stourbridge Extension Canal (with Fens Branch) 298
Stover Canal and Hackney Canal 300
Stratford Canal 303
Stroudwater Navigation 306
Tamar Manure Navigation 309
Tavistock Canal 311
River Tees 314
River Thames 316
Thames & Medway Canal 323
Thames & Severn Canal 325
Torrington or Rolle Canal 328
River Trent (Shardlow to Gainsborough & Upper River) 330
Trent & Mersey Canal 333
Ulverston Canal 338
Waltham Abbey Royal Gunpowder Works 340
Weaver Navigation 342
Wey & Arun Junction Canal 346
Wey & Godalming Navigations 348
Wilts & Berks Canal(incl North Wilts Canal) 350
Wisbech Canal 353
Worcester & Birmingham Canal 354
Worsley Underground Canals 357
Rivers Wye and Lugg 357
Small Abandoned Canals 359
APPENDIX A: WATERWAYS COVERED BY THE OVERVIEW 361
APPENDIX B: WATERWAYS DESIGNATED SITES WITH NATIONAL HERITAGE LIST FOR ENGLAND (NHLE) NUMBERS 371
APPENDIX C: CANAL RESERVOIRS 449

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PART TWO GAZETTEER

Gazetteer, arranged alphabetically, of all canals and navigations operating in the 19th century identifying significant surviving structures and historic buildings.

The gazetteer was compiled by desk-based research embracing the literature review, the internet, national heritage databases and national archives. the two main general references have been Paget-Tomlinson (1993) Bradshaw (1904 reprinted 1969) while Priestley (1831 reprinted 1967) provides a check for waterways missing from Bradshaw. These have been supplemented by the many books on individual waterways and groups of waterways references to which are made in the individual entries. Wikipedia has been extensively used as a source of information cross checked against other sources and for reference to other internet sources. The Association of Inland Navigation Authorities (AINA) has produced a map showing the 2012 management of navigable inland waterways.

Since this Gazetteer was first compiled the Inland Waterways Association has produced the Inland Waterways Directory of Great Britain which can be downloaded from the IWA website. The website also contains lists of *Restored Waterways, Waterways Currently Under Restoration* and *Waterways Proposed for Restoration*. In the *List of Restored Waterways* where a waterway was restored in stages, the date shown is when the full length became available for navigation. Links within the list of *Waterways Currently Under Restoration* provide details for the individual projects where waterways restoration is underway and includes a summary about the waterway, historical information and photo gallery. The list of *Waterways Proposed for Restoration* has information on waterways where physical waterway restoration work has not yet started to any substantial extent.

Wherever possible, illustrations have been drawn from the online version of Historic England's *Images of England* Collection which was originally created as a Millennium project by the Royal Commission on the Historical monuments of England and is held in the Historic England Archives in Swindon. These images are copyright of the individual photographers whose names are cited in the captions and grateful thanks is extended to them for providing such a comprehensive snapshot record of listed heritage assets at the beginning of the new century. Wikipedia has also been extensively used as a source for illustrations which are in the common domain and the copyright holders are cited in each case. They are to be thanked for placing this material in the common domain and as are contributors to the Geograph national photographic database. Similarly, the internet site Pennine Waterways provides detailed virtual tours along many of the waterways of northern England and grateful use has been made of this source to supplement the above sources. Pennine Waterways can be accessed by the caption citation.

There is a varying scale of treatment in depth and detail of the waterways - dependent on their state, ownership and perceived heritage value. Thus the entries for the waterways managed by the Canal & River Trust are illustrated, up-dated and expanded summaries of the assessments of significance made in 1999 by British Waterways of its individual waterways while in the entries for abandoned and lost

canals the wider settings of these is discussed to outline the survival of features as significant archaeological sites or linear features. River navigations receive a level of treatment commensurate with the degree of surviving man-made intervention.

Some waterways assessed with the highest Heritage Value rating of 5 have been given particularly detailed treatment to highlight the wide range of significant features that can be found on a single waterway but even with those only an indicative, rather than a comprehensive, cover can be attempted. At the other end of the spectrum where a low or insignificant assessment has been made, similar indicative treatment requires only slight detail.

KEY

Owner/Status:

CRT	Canal & Rivers Trust
EA	Environment Agency
OT	Other, private etc
ABND	Abandoned
DER	derelict - archaeological remains

Overall Heritage Value:

5	exceptional
4	high
3	medium/high
2	medium
1	low
0	insignificant

Main References:

BR	Bradshaw (1904)
P-T	Edward Paget-Tomlinson (1994)
EDW	L A Edwards Inland Waterways of Great Britain (1985)
RR	Ronald Russell (1971)
D&C	detailed volume
DB	included in separate dedicated book
rchs	Railway & Canal Historical Society Journal
Newc	Trans Newcomen Society
AW	Abandoned & Vanished Canals of England (2014)
iar	Industrial Archaeology Review
WIK	Wikipedia
SF	Stuart Fisher – River Navigations
McK	Shell Book of Inland Waterways Hugh McKnight (1975)
TT	The Times Waterways of Britain
RE	Rees Encyclopaedia
Priestley 1831	Historical Account of the Navigable Rivers, Canals and Railways throughout Great Britain

The lines of most waterways can be found on Google Earth Canal Maps which seeks to map all the canals of the UK, including all the derelict and in-filled ones.

Waterway:	**River Adur & Baybridge Canal**
Status:	reverted to river course
Overall Heritage Value:	1
Owner/operator:	EA
Line:	
Shoreham to Bines bridge	14 miles
Baybridge canal	3 miles
Date of opening:	1807 and 1825
	Disused 1861; Closed 1875
Statutory designations:	None

(Wikipedia Bob1960evens)

Summary Description and History:

The tidal river has been used commercially from early 18th century but was only improved early 19th century. Under an Act obtained in 1807 the river was improved, to aid both navigation and drainage, and barges could reach Bines Bridge on the Western Adur. The navigation was extended to Baybridge by the construction of two locks by the civil engineer May Upton after an Act of 1825. Traffic declined after a railway opened 1861 and the navigation closed in 1875. The disused locks survive un-gated on the river.

Statement of Significance:

A late improved river navigation, swiftly disused, and of little significance. The waterway was crossed by a swing bridge just above the lower lock and a lift bridge at Hatterell Farm. Both have been replaced by fixed bridges.

Elements of considerable significance: none

Elements of some significance: two disused locks

Main References: BR/P-T/ McK/RE

Websites: Wikipedia

Waterway:	**Aike Beck**
Status	disused river navigation
Overall Heritage Value:	0
Owner/operator	AE?
Line	River Hull to Lockington 2 miles
Date of opening:	c.1799
	Closed c1850s
Statutory designations:	none

Wikipedia (Keith Allison)

Summary Description and History:

Aike Beck joined the River Hull 0.4 miles (0.64 km) above its junction with the Leven Canal. Navigable for no more than 2 miles (3.2 km) from the river, its main function was to carry coal, and it had two canal locks taking craft of 40 feet by 8 feet 10 inches (12 m x 2.7 m). One was an entrance lock where the Beck joined the river Hull, and the other was about halfway along the navigation. Below the middle lock, Aike Beck was enlarged, while above it, the course of the navigation was made much straighter than the original course of the beck. Coal and agricultural fertiliser was transferred from keel boats to the smaller, shallow draughted boats used on the navigation, and hauled by horse or manpower to Lockington wharf.

The navigation was constructed in the late 18th century by the Hotham family who owned large amounts of land in the area. Aike Beck crossed over the Beverley and Barmston Drain with the drain culverted underneath; one of eleven similar structures required to allow the drain to cross existing waterways. It is thought to have ceased to be used for navigation in the 1850s, as it appears to be derelict on the 1855 Ordnance Survey map, where both the second lock and the coal basin at Lockington are marked “old”. By the time the 1891 map was published, the final section from the beck to the coal wharf had disappeared altogether, and the lock gates must have been removed, as the beck is marked as tidal to beyond the coal wharf junction. [based on Wikipedia]

Statement of Significance:

There are no features of any great significance.

Elements of considerable significance: none

Elements of some significance: none

Main References: P-T

Context: The River Hull Valley Drainage Group *Becks. Banks, Drains and Brains* (2013)

Websites Wikipedia

Waterway: **Aire & Calder Navigation**

Includes Wakefield Branch, River Aire, Selby Canal, New Junction Canal and Knottingley- Goole Canal and Goole Docks.

Status:	operational	
Overall Heritage Value:	4	
Owner/operator:	CRT	
Main Line:		
Aire & Calder Main Line Leeds to Goole		34 miles
Wakefield Branch	Wakefield to Castleford	8
Selby Canal		12
River Aire		5
Date of opening:	Acts 1699, 1774, 1820, 1828	
New Junction Canal		5
Joint with Sheffield & South Yorkshire Navigation Act 1891, opened 1905		
Statutory designations:	Scheduled Monument	1
	Grade 1	1
	Grade II*	3
	Grade II	18
	Total	23

The wide waterway leaving Goole and Pollington Lock (www.penninewaterways.co.uk)

Summary Description and History:

From its end-on junction with the Leeds & Liverpool Canal in central Leeds, the Aire & Calder Navigation flows to the tidal River Ouse at Goole, where the docks are a reminder that the canal continues to serve its historic function of transporting freight. Oil, sand and gravel are currently the main freights. Until 2002, the canal was also used to transport coal. The Navigation has been regularly improved and upgraded throughout history: some of the most famous names in engineering, including Smeaton, Jessop, Rennie and Telford, have left their marks. Though the waterway is usually considered a river navigation, the Ferrybridge-Goole stretch is entirely man-made.

Since 1625, Yorkshire entrepreneurs had sought to improve navigation on the natural rivers Aire and Calder. After obtaining and Act of Parliament in 1699, short canals were cut to bypass particularly narrow or tortuous stretches. Improvements continued, with the Knottingley and Goole Canal opening in 1826, and the most recent was an entirely new section near Castleford, constructed in the 1980s after a spectacular breach.

The legacy of continual improvement means that the Aire & Calder Navigation is still a busy freight artery after 300 years, despite competition from road and rail. With constant demands to carry more in bigger boats, sea-going and coastal vessels, carrying 700 tons or more, pass through locks almost 200 feet (61 metres) long controlled by traffic signals. Over two million tons of freight is carried every year — a figure comparable with many European waterways.

One of the large Locks (Wikipedia: Mike Reay)

The Selby Canal is a branch of the Aire & Calder, built in response to a proposed Leeds and Selby Canal. The Selby Canal opened in 1778, becoming the main route from Leeds to the River Humber via the River Ouse. However, as vessel size increased its shallow draught proved inadequate.

Selby Lock (IoE 325709 John Turner)

West Haddlesey Flood Lock. The far gates are tall to protect the canal from flooding when river levels are high. (www.penninewaterways.co.uk)

By 1826 much of its traffic had transferred to the new Knottingley and Goole Canal, which was in turn connected with the Sheffield and South Yorkshire Navigation by the New Junction Canal of 1905 — the last waterway built in Britain until 2002. The New Junction Canal leaves the Don Navigation at Bramwith Junction, runs over the River Don on an aqueduct, and continues in a straight line for 5.5 miles to join the Aire and Calder Navigation upstream from Goole. It provided a much more direct route from Sheffield to Goole.

Statement of Significance (based on BW 1999):

The Aire & Calder is a particularly fine example of an early C18 river navigation that was constantly being developed and improved as a system until recent years. It has many large-scale engineering structures, culminating in docks and former Aire & Calder Navigation company town at Goole and a number of locks modernised in 1970s to European standards, with coloured light operation. These locks with their accompanying control cabins and houses have some historic value and represent a final C20 phase of waterway business development.

Leeds Warehouses (www.penninewaterways.co.uk)

There are historic collections of warehouse and wharf buildings at Leeds waterfront and Goole and workshops at Stanley Ferry, private boatyards such as Hargreaves at Castleford and Thwaite Mills Industrial Museum by the canal-side. In Leeds itself Potato Wharf, Clarence Dock, striking new footbridges and converted warehouses such as the former Flax Warehouse illustrate the recent urban regeneration of waterways.

The Lowther Hotel, Goole 1826 (165274 Janet Roworth)

The Lowther Hotel, Goole (1310687) is a the key building in the development of the company town of Goole in the 19th century; the first permanent building constructed; the town's principal municipal building for much of the 19th century; and the operational base for the Aire & Calder Navigation Company into the 20th century. It contains the rare survival of a complete set of early 19th century painted wall decorations in the principal suite of rooms and the way that they clearly illustrate the connections between The Lowther, the Aire & Calder Navigation Company, and Goole and is Grade II *.

Elements of considerable significance:

The Stanley Ferry Aqueduct ((1261690)on the Wakefield Branch, designed by George Leather and completed in 1839, is one of the most significant canal structures in the country.

The docks at Goole entered by Victoria and Ouse (1083212) retain the notable coal hoists (Grade II*1083214 & Grade II 1160288) and an hydraulic tower (1310668). The Lowther Hotel, Goole.

Former terminus at Dock St, Leeds with associated buildings. Wakefield Quay Warehouse – last C18 survivor on Wakefield section Ferry Bridge No 14. [BW 1999]

Stanley Ferry Aqueducts of 1839 and 1980 (IoE : 436888 George Hodlin and www.penninewaterways.co.uk)

Hoist and Accumulator Tower South Dock Goole (IoE 165281 Les Waby)

Elements of some significance:

Early lock cottages eg

Aqueduct Cottage c.1839 Stanley (IoE 342547 Robin Hodges)

Some survival of 1820s domestic housing and institutions in Goole company town such as the Royal Hotel (1346744) . Crane at Thwaite Mills. The Yorkshire Waterways Museum, Goole.

Coal Handling at Knottingley, Castleford and Ferrybridge (Pennine Waterways)

The Ferrybridge Power Station Coal Terminal is an impressive 20th-century structure while there are much earlier coal loading chutes at Knottingley and Castleford.

Main References: BR/P-T/DB/ McK/TT/RE

2003 Mike Taylor *Canals of the Aire & Calder Navigation* Wharncliffe Books

1967 Baron F Duckham The Founding of Goole *Industrial Archaeology* Vol 4 1967 No 1 pp 19-28

1969 J D Porteus Goole: A pre-Victorian Company Town *Industrial Archaeology* Vol 6 1969 No 2 pp 105-113

1977 J D Porteus *Canal Ports The Urban Achievement of the Canal Age* 1977 Academic Press

Websites: CRT Wikipedia

The Pennine Waterways website includes a virtual tour of the whole length of the canal and its branches.

Waterway: **Ancholme Navigation**

Status:	navigable waterway	
Overall Heritage Value:	2	
Owner/operator:	EA	
Line:		
	from the Humber Estuary at Ferriby Sluice, to its terminus at Bishopbridge	19 miles
Date of opening:	1635, 1767 and 1825	
Statutory designations:	Scheduled Monument	1
	Grade II*	1
	Grade II	2

Summary Description and History:

The River Ancholme Navigation runs from the Humber Estuary at Ferriby Sluice, near South Ferriby, to its terminus at Bishopbridge 19 miles (30.4 km) upstream. There are two locks (Ferriby Sluice and Harlam Hill Lock) and an additional navigable loop in the river to the small town of Brigg. First improved in1635 then again under Acts of 1767 and 1825 the river was important for cargo transport, linking rural areas with Yorkshire's industrial towns. In the second half of the nineteenth century, a passenger packet ran from Brigg to South Ferriby, connecting with a steamer to Hull.

Horkstow Bridge (Wikipedia General Synopsis)

Under the improvements of the 1825 Act the Horkstow Suspension Bridge (Grade II* 1214853) was built by Sir John Rennie 1834-5 Gospel Oak Ironworks, Tipton, Staffordshire, ironfounders while the graceful iron Gradell Hibaldstow Bridge (1346522), 1889, probably re-using mid C19 abutments, is by Alfred Atkinson, engineer; Messrs Porter and Co of Lincoln, ironfounders. The nearby Cadney Bridge (1083703) is by Messrs Goodwin, Jardine and Co of Glasgow, ironfounders while Broughton Bridge an unusual Inverted suspension bridge may also be by Alfred Atkinson.

Hibaldstow Bridge (IoE 166019 Janet Tierney)

Broughton Bridge (IoE 165991 Janet Tierney)

Statement of Significance:

The navigation attracted the attention of several eminent engineers and the 19th century engineering works are of considerable significance. Ferriby Sluice (1005244) is scheduled.

Following a campaign by IWA the upper part of the navigation is being restored including Harlam Hill Lock.

Harlam Hill Lock in 2008 (Wikipedia David Wright)

Elements of considerable significance:

Horkstow Suspension Bridge Grade II* Hibaldstow and Cadney Bridges Grade II: Ferriby Sluice (1844)

Elements of some significance:

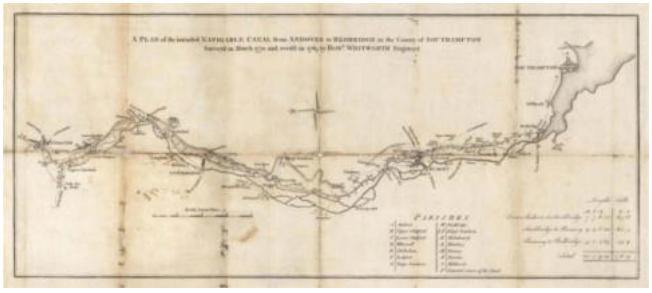
Harlam Hill Lock (restored) New River Acholme bridge (1083681)

Main References: BR/P-T/rchs34/SF/ McK/RE

Websites: Wikipedia, IWA

Waterway: **Andover Canal**

Status:	ABND much of line converted to railway
Overall Heritage Value:	1
Owner/operator:	various
Line:	Andover to Redbridge 22 miles
Date of opening:	1794 Closed 1859
Statutory designations:	Scheduled Monument 1



Robert Whitworth's Plan, 1789

Summary Description and History:

Built under an Act of 1789 the canal ran 22 miles from Andover to Redbridge for much of its length paralleling the rivers Anton and Test and had a fall of 179 feet through 24 locks. Never very profitable, it was sold to the LSWR in 1859 and around 14.5 miles of the canal bed were used for the railway. A stretch of water survives between Timsbury and Romsey and several stretches of canal bed including remains of a lock can be seen alongside the old railway track.

Andover Canal near Romsey (Wikipedia Geni)

Statement of Significance:

Chalk Hill Lock (1001794), Horsebridge scheduled monument.

Elements of considerable significance: none

Elements of some significance: Lock remains near Fullerton

Main References: P-T/ RR/RE

1990 P A L Vine *Hampshire Waterways* Middleton Press

Websites: Wikipedia

Waterway:	**River Arun Navigation, Rother Navigation and Petworth Canal**

Status:	ABND	
Overall Heritage Value:	3	
Owner/operator:	EA upper reaches	
Line:		
Newbridge to Littlehampton		28 miles
Date of opening:	1787, 1790, Disused progressively downstream 1888,1896,1938	
Rother Navigation	Midhurst to Arun Navigation	11 miles
Opened 1794	Closed 1888	
Petworth Canal	Rother Navigation to Haslingbourne Bridge	1.5 miles
Opened 1795	Closed 1826	
Statutory designations:	Scheduled Monument	1
	Grade II	3

Stopham Bridge central raised arch of 1822 (Wikipedia Charlesdrakew)

Summary Description and History:

A tidal navigable river from antiquity, the Arun was improved by artificial cuts, locks, an aqueduct and a tunnel in the late 18th century. The route involved a new artificial cut from Newbridge along the river to Pallingham, crossing the river by an aqueduct on three strong brick arches at Lordings Lock. An undershot waterwheel of a design unique on the waterway system was built into the aqueduct. Driven by the flow of the river this had scoops on the back of the blades which raised a small proportion of the flowing water into the higher canal. This was completed in 1787. A second artificial cut was added in 1790 from Coldwaltham to Stopham, including a 375-yard tunnel under Hardham Hill, which avoided a large bend in the river near Pulborough, saving 5 miles. The route of the Navigation from Newbridge to Houghton was 13 miles with six locks while the river continues a further 15.5 miles to the sea at Littlehampton.

Lordings Lock Waterwheel being restored (Wikipedia Charlesdrakew)

With further improvements, Arundel itself became a prosperous port in the early 19th century and the Wey & Arun Canal was promoted as a link to London. Trade declined with railway competition and the Navigation was abandoned in 1888, though traffic continued into the 20th century.

The Rother Navigation was promoted by the 3rd Earl of Egremont who obtained an Act in 1791 to improve the River Rother up to a distance of some 11 miles. The work was largely done by estate workers to specifications prepared by William Jessop, a friend of the Earl. The short Petwoth Canal was originally intended to extend much further a part of a link to London but was only built to Haslingbourne Wharf, involving two locks, when the ambitious scheme was abandoned and the canal only operated until 1826. Following closure, the locks were dismantled and recycled parts used on the Rother and the bed was filled in by the Earl. Barge traffic ceased on the Rother by 1888, and the navigation effectively closed, though it was not officially abandoned until 1936.

Statement of Significance:

The six locks and the Orfold Aqueduct and Hardham Tunnel were on upper sections on the navigation which were disused in 1888 and while the aqueduct is on a section which might be restored the approaches to the tunnel are built over. The canalside lime kilns, engine sheds, etcetera (1005810)and a short section of canal at Amberley are scheduled. The central arch of the Grade I medieval Stopham Bridge (1226929) was raised in 1822 to permit navigation.

New Bridge Wisborough Green (IOE 425184 Neil Sutherland)

Close to where the canal joins the River Arun at Newbridge Wharf the road bridge encapsulates the long history of the river. The main structure over the river Arun dates from 1839. Red brick. Three round-headed arches with blunt cutwater between them but beneath this bridge are the narrower stone arches, two round-headed and one pointed, of the older bridge, probably dating from circa 1500, two of which arches were rebuilt about 1700. The smaller red brick bridge to the west over the

Wey and Arun Canal dates from 1815-8. Two bridges on the Rother Navigation are Grade II.

Elements of considerable significance:

Stopham Bridge, Lordings Lock and Waterwheel Orfold Aqueduct

Elements of some significance:

Hardham Tunnel

Main References: BR/P-T/ McK/RE

1995	P A L Vine	*London's Lost Route to Midhurst*	Sutton
2007	P A L Vine	*The Arun Navigation*	Tempus 2007

Websites:

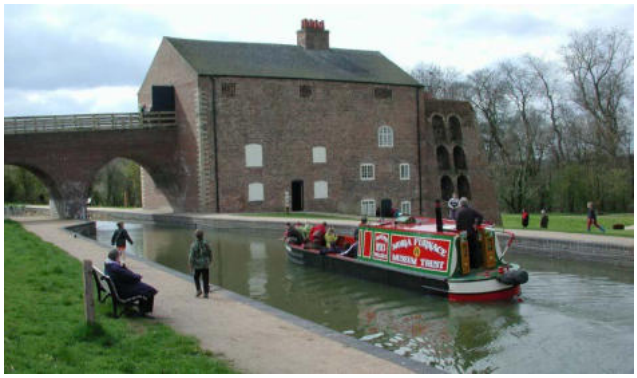
Wikipedia (detailed historical description). geography.org.uk has a photographic journey up the river showing little has survived of navigation features.

Waterway: **Ashby Canal**

Status: CRT waterway
Overall Heritage Value: 3
Owner/operator: CRT
Line:
Marston on the Coventry Canal to Moira 30 miles
Date of opening: Act 1794 opened 1804
Statutory designations: Grade II 11

Summary Description and History:

A broad lockless canal following the 300ft contour with a stop lock at its junction with the Coventry Canal. A classic Mania canal surveyed and engineered by Robert Whitworth and his son, also called Robert construction began in July 1794. It was built to tap the coal reserves around Measham and though the canal was taken over by the Midland Railway in 1846, it remained profitable until the 1890s, after which it steadily declined. Around 9 miles (14 km) passed through the Leicestershire coal field where it connected with a network of important tramways and the Moira Furnace and was heavily affected by subsidence, with the result that this section from Moira, southwards to Snarestone, was progressively closed in 1944, 1957 and 1966, leaving 22 miles (35 km) of navigable canal.



Moira Furnace (Wikipedia MaltaGC)

Recent restoration has returned parts of this section to its previous appearance including a fine reconstruction of the charging bridge to Moira furnace. Ambitious proposals to continue restoration by constructing new sections of canal to bypass obstructions are slowly being implemented.

Statement of Significance:

Several prominent canal engineers were involved with the construction of the canal including Robert Whitworth, Thomas Newbold, Benjamin Outram and William Crossley. Being lockless there are few significant structures on the canal itself other than a couple of aqueducts, bridges and the Snarestone Tunnel.

Snarestone Tunnel (Wikipedia Sladen)

Traces of the old tramways can still be seen, particularly towards Ticknall. A low embankment, still with some stone sleeper blocks crosses a field and a tunnel passes under the drive to Calke Abbey. There is also an arch bridge (1281697) in Ticknall village where the line ran into the quarries. These associated remains heighten its heritage significance hence a 3 mark.

Elements of considerable significance:

Snarestone Tunnel (1295233), Moira Furnace wharf (and furnace)(1074335), remains of tramways at Calke Abbey and Ticknall.

Elements of some significance:

Shenton Aqueduct

Main References: BR/P-T/ McK/RE

Clinker, C.R.; Hadfield, C. (1978). *The Ashby-de-la-Zouch Canal and its Railways*. Bristol: Avon-Anglia Publications & Services. Reprinted from the *Transactions of the Leicestershire Archaeological and Historical Society* (1958).

2016 Geoffrey Pursglove *The Ashby Canal: Past, Present & Future* Ambion Publishing

Websites:

Wikipedia (detailed account of origins, construction, operation, decline and restoration): also Ashbycanal.org.uk

Waterway: **Ashton Canal**

Status:	operational CRT	
Overall Heritage Value:	4	
Owner/operator:	CRT	
Main Line:	7 miles	
Stockport Branch	5 miles (abandoned)	
Hollinwood Branch	5 miles (abandoned)	
Fairbottom Branch	1 mile (abandoned)	
Islington Branch	0.6 mile (abandoned)	
Date of Act and opening:	Act 1792 open in stages 1796 to 1800	
Closed	All Branches c.1932	
Statutory designations:	Grade II*	1
	Grade II	22
	Total	23

Summary Description and History

Although comparatively short the Ashton Canal built under an Act of 1792 was to be a vital link in the waterways serving Manchester. Heavily locked and with several aqueducts its branches served numerous collieries and industrial concerns. Surveyed by Thomas Brown it was opened to Ancoats in 1796, and connected to the Rochdale Canal 1800. The Stockport, Hollingwood and the Fairbottom branches opened in 1797. There were aqueducts over the Medlock at Waterhouses and at Beswick Street, over the Tame at Dukinfield and over Store Street near Ancoats. Subsidence and road competition closed the branches and the main line was impassable by 1960. The Main Line is now fully restored and attention has turned to restoring or at least preserving some features on its abandoned branches.

Statement of Significance:

The Ashton Canal is an archetypical canal of the industrial revolution being heavily engineered and formerly lined by mills and industrial sites.

Store Street aqueduct (Wikipedia Pit-yacher)

The Store Street Aqueduct (1270666) is a very early example of a skew arch aqueduct and is grade II* The canal's decay was also symptomatic of the decline of the canal system and its rescue in the late 1960s, in the face of adversity, symbolises the rise and success of the waterways restoration movement. This history of exemplary community involvement strengthens the significance of its fine collection of aqueducts and bridges.

The branches led to some very significant historic industrial sites and their surviving features may merit consideration for protection.

(Left) Waterhouses Aqueduct over River Medlock on Hollingwood Branch (IoE 212440, Pamela Jackson):
(Right) Hollingwood Branch The second and third locks formed an unusual lock staircase, with three gates. On the hillside to the right was a pumping station, where a James Watt beam engine pumped water back up to the higher level. (www.penninewaterways.co.uk)

(Left) Entrance to the Islington Branch (Wikipedia David Dixon):
(Right) The Stockport Branch crossed the Manchester to Sheffield Railway over Gorton Aqueduct. Originally by a substantial stone aqueduct but, when the railway was widened to four tracks in 1905, this iron trough aqueduct was built to replace it. (www.penninewaterways.co.uk)

Elements of considerable significance:

Store Street Aqueduct, Medlock Aqueduct Waterhouses (1356454), Tame Aqueduct shared with the Peak Forest Canal. Group of buildings at Fairfield Junction incl. Lock, stone roving bridge, domestic row and office, Portland Basin warehouse was largely destroyed by fire in 1972 but was rebuilt as a museum with its waterwheel powered hoist restored.

Elements of some significance:

Including listed Locks numbers 1-3, 6-15 & 18, Bridges numbers 4, 5, 9 & 16, Lock Keepers Cottages at locks numbers 2 & 7 Towpath Bridges over junctions with Islington Branch Canal Stockport Branch Canal Former Packet Boathouse (1067947) adjacent to bridge number 16.

(Left) Valley Aqueduct carrying the Fairbottom Branch across the old coach road from Ashton to Oldham. (www.penninewaterways.co.uk): (Right) Rebuilt Portland Basin Warehouse (IoE 212676 Samantha Jones)

Lock No.7 with roving bridge (IoE 387895 Patrick Norris)

Main References: BR/P-T/ McK/ TT/RE

Websites:

Wikipedia: The Pennine Waterways website gives considerable detail and includes a virtual tour of the whole length of the canal.

Waterway: **River Avon** (Warwicks)

Status:	Operational waterway
Overall Heritage Value:	2
Owner/operator:	Avon Navigation Trust
Line:	Tewksbury to Alveston 47 miles
Date of opening:	1636
Statutory designations:	none directly related to the navigation, other than existing bridges with heightened navigation arches

Bidford-on-Avon Bridge with 18th century navigation arch (Wikipedia Chris J Wood)

Summary Description and History:

The River Avon has had a long complicated history of ownership and development for navigation. It is usually considered as two navigations meeting at Evesham and indeed for hundreds of years these two sections operated separately. In the 17th century several attempts were made to improve navigation including the building a two pound locks. Ownership of the navigation was formally divided into the Upper and Lower Avon in 1717, with Evesham being the dividing point. The Lower Avon Navigation between Evesham and the River Severn was leased by George Perrott in 1758, who spent over £4,000 upgrading the locks and weirs to enable 40 tonne barges to navigate the river. The work was completed by 1768.

The upper section 17 miles long had eleven pound locks in 1842 but, succumbing to railway competition, was disused by 1857. The Lower Avon with seven pound locks struggled on but during the 1939-45 war became unnavigable above Pershore. The Lower Avon Navigation Trust was formed in 1950 and with assistance from the IWA the Navigation was restored to Evesham by 1962. The Upper Avon Trust was constituted in 1965 to restore the upper river and this was completed by 1974 with several new locks and its opening by Queen Elizabeth the Queen Mother was a milestone in the restoration movement.

Statement of Significance:

As most of the engineering works on the river itself are relatively new there is little of tangible heritage value on the waterway other than several early bridges such as Bidford-on-Avon Bridge (1355318). It has however a very important place in the history of the waterways restoration movement. Lewis et al (1969) mention slight remains of the Cropthorne and Pershore Watergates but their present state is not known.

Elements of considerable significance:

Bidford-on Avon Bridge with navigation arch

Elements of some significance:

Possible archaeological remains of the Cropthorne and Pershore Watergates.

Main References: BR/P-T/SF/ McK/RE

Websites:

Wikipedia (detailed account of the history, operation, decline and restoration)

Waterway: **River Avon** (Bristol): see Kennet & Avon Canal

Waterway: **Aylsham** or **Upper Bure Navigation**

Status:	abandoned navigation	
Overall Heritage Value:	1	
Owner/operator:	none	
Line:	Aylsham to Coltishall	9 miles
Date of opening:	1779	
Statutory designations:	none	

Summary Description and History:

The River Bure is a main river in the Norfolk Broads and is navigable from the sea up to Coltishall Bridge where the Aylsham or Upper Bure Navigation commenced.

(Left) The Bure at Aylsham (Wikipedia M Hobbs): (Right) Coltishall Lock early 20th century (IWA)

Opened in 1779 under an Act of 1773 the 9 mile navigation had five locks (54ft x 12ft 8in.) for shallow draft Norfolk wherries and was busy for a century but trade declined with the opening of local railways in the 1880s. When severe floods damaged the locks in 1912 the navigation closed and was formally abandoned in 1928. Buxton lock has been built over as has the basin in Aylsham but remains of the others can still be seen. There is now some interest in restoring historic features along the waterway and to commemorate the centenary of the closure in 1912 a project was launched to research the history of the navigation and identify historic remains.

Statement of Significance:

Little other than remains of locks.

Elements of considerable significance: none

Elements of some significance: Remains of locks at Alysham, Burgh Lock Coltishall and Oxnead.

Main References: BR/P-T/SF

Websites: Wikipedia East Anglian Waterways Association

Waterway: **Barnsley Canal**

Status:	Abandoned – derelict and partially in-filled	
Overall Heritage Value:	2	
Owner/operator:	Various	
Line:		
Wakefield to Barnby Bridge		15 miles
Opened	1799 to Barnsley and 1802 Barnby Bridge	
Closed	1946	
Abandoned	1953	
Designations:	Grade II	4

Summary Description and History:

The Barnsley Canal, built under an Act of 1793 to tap the coal reserves near Barnsley, was quite an engineering achievement with 20 broad locks capable of taking Yorkshire keels, a five arch aqueduct over the Dearne, a large summit reservoir at Cold Hiendley and two pumping stations.

Dearne Aqueduct (now demolished)

Though profitable in the 19th century, especially after its leasing in1854 then acquisition in 1875 by the Aire & Calder when the locks were enlarged, subsidence was a problem throughout its existence and the upper end and five locks above Barugh wharf was closed in 1893. Plagued by subsidence the canal closed to traffic following a serious collapse in 1945 and was officially abandoned in 1953 and the aqueduct demolished.

Water supply for the Barnsley Canal was a great problem. A pumping engine was installed in 1803 below Wintersett Reservoir which was used to pump surplus water from the canal into the Wintersett Reservoir up into the canal which had opened here in 1799. The Wintersett Reservoir was enlarged in 1807. In 1840 the Company bought land at Cold Hiendley for a second reservoir. This Cold Hiendley Reservoir, between the canal and the Wintersett Reservoir, was finally built in 1854.

Statement of Significance:

Some watered sections remain crossed by historic bridges such as Walton Hall Bridge and Haw Park Bridge an in-filled bridge at School Lane, Walton, but little else of significance survives other than the two reservoirs and the designated bridges and aqueduct but nothing of the interesting West Riding CC lift bridge of 1934 at Royston.

(Left) Aqueduct over Silkstone Beck (IoE Number: 334184 Barry Jackson): (Right) Haw Park Bridge (www.penninewaterways.co.uk)

There are now proposals by the Barnsley Canal Consortium to restore the Barnsley Canal with an engineering report of 2006 confirming that restoration was possible though it would involve much new build bypassing the original locks and a new aqueduct over the River Dearne.

Elements of considerable significance: none

Elements of some significance:

Reservoirs at Cold Heindley (1840) and Wintersett Three bridges – Blue Bridge (1135574) Walton Hall Bridge (1135575) Haw Park Bridge (1200056) – and Silkstone Beck Aqueduct Grade II. (1192033)

Main references **BR/P-T/RR/RE**

2004 Roger Glister Wharncliffe *The Forgotten Canals of Yorkshire: Wakefield to Swinton*

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway: **Basingstoke Canal**

Status: Disused 1949 but now 32 miles re-opened
Overall Heritage Value: 3
Owner/operator: Basingstoke Canal Society on behalf of Hampshire and Surrey CCs.
Line Basingstoke to River Wey at Byfleet 37 miles
Date of opening: 1794
Disused progressively eastwards from 1910 to 1949. Western five miles built over
Statutory designations: Scheduled Monument 1
Grade II 18

Summary Description and History:

Built to stimulate local agricultural development under an Act of 1778, renewed in 1788, the canal was surveyed by William Jessop with John Pinkerton as the contractor. 37 miles long with 29 locks and the 1230 yard long Greywell Tunnel the canal was never profitable and trade declined with the opening of local railways. It was disused progressively eastwards from 1910 to 1949 and the western five miles built over.

The canal was not nationalised and was one of the first projects of the restoration movement having been bought at a public sale in 1949. After many vicissitudes, thirty two miles of the waterway, from the Wey Navigation junction to the Greywell Tunnel(1339863), were formally reopened in May 1991 by HRH The Duke of Kent.

(Left) Greywell Tunnel (IoE 136606 Charles Cordy-Simpson): (Right) Brick Kiln Bridge (IoE 138698 Charles Cordy-Simpson)

Statement of Significance:

A landmark canal of the restoration movement, many of the 29 locks and bridges are essentially original.

An association with Smeaton is claimed in the Scheduling details for Goldsworth or Langman's Bridge (1005926) but William Jessop was the main engineer.

Elements of considerable significance: Greywell Tunnel, being closed, is of archaeological significance

Elements of some significance: locks and 15 designated bridges eg Brick Kiln Bridge Grade II (1092940)

Main References: BR/P-T/DB/ McK/RE

1990 P A L Vine *Hampshire Waterways* Middleton Press

Websites: Wikipedia Basingstoke Canal Society

Waterway: **Beverley Beck**

Status: Operational
Overall Heritage Value: 1
Owner/operator: Beverley District Council
Line:
River Hull to Beverley 1 mile
Date of opening: 1344, 1727, 1802
Statutory designations: Grade II 1

Summary Description and History:

A navigable, tidal creek off the River Hull, Beverley Beck has been used since medieval times but improvements were made in the 18th century and again in 1802 when a lock designed by William Chapman was built. In 1898, a steam engine was installed, which could be used to top up the water levels in the beck by pumping water from the River Hull. A multi-million pound refurbishment of the area concluded in 2007, with the refurbishment of the lock gates and pumping engine. The Beverley wharf with its small crane is now lined by housing and is home to a Beverley-built traditional barge.

The Beck at Beverley (K Falconer)

Statement of Significance:

Grovehill Lock has association with William Chapman a pioneer canal engineer.

Elements of considerable significance: none

Elements of some significance: Grovehill Lock and aqueduct over Branston Drain (1246137)

Main References: BR/P-T/DB/ McK

2013 The River Hull Valley Drainage Group *Becks. Banks, Drains and Brains*

Websites: Wikipedia

Waterway: **Birmingham Canal Navigations** (BCN)

Overall Heritage Value: 5 (varies 1 -5)

Summary Description and History:

Birmingham Canal Navigations (BCN) is a network of canals connecting Birmingham, Wolverhampton, and the eastern part of the Black Country.

Originating from the Birmingham Canal the BCN came together with a merger of two canals in 1784 and was known as the Birmingham Canal Navigations from 1794. It is connected to the rest of the national canal system at several junctions. At its working peak, the BCN contained about 159 miles of canals as well as several hundred wharfs, short private branches and basins; today just over 100 miles are navigable. The history of its development as a system and its subsequent contraction and revival is so complicated that only a outline summary can be presented in this overview.

The extent of the system and its former ramifications can be best appreciated in cartographic form and Richard Dean's *Historical Map of the Birmingham Canals*, accompanied by a map in one of the modern popular map series, is a valuable aid. The BCN Society Archive is an interactive map based source of information

In 1991 Richard Chester –Browne published *The Other Sixty Miles: A survey of the abandoned canals of Birmingham and the Black Country* based mainly on his work in the 1970s updated to 1991. This seems to indicate that little of any great significance survives on these abandoned sections but it is recommended that a separate detailed report might be commissioned from the local experts in Birmingham Canal Navigations Society (BCNS) updating the fate and heritage of the BCN's very numerous abandoned branches and basins.

See also gazetteer entries for Warwick & Birmingham (Grand Union Canal), Stourbridge Canal, Coventry, Stratford Canal and Worcester & Birmingham Canal which all connect in the Birmingham area with the BCN.

Main References: BR/P-T/RE/McK Priestley 1831

1966 Charles Hadfield *The Canals of the West Midlands* D & C

1969 Dunham and Manion *The B.C.N. A Cruising Guide* S & W Canal Society and IWA

1974 S R Broadbridge *The Birmingham Canal Navigations 1768-1846*D&C

1991 Chester-Browne, Richard *The other sixty miles: a survey of the abandoned canals of Birmingham and the Black Country* BCNS

1998 Tom Foxon *The Industrial Canal Vol 2: The Railway Interchange Trade* Heartland Press

1999 Ray Shill *Birmingham's Canals*. Sutton

2006 D Perrott, J Mosse *Nicholson Waterways Guide 3 – Birmingham and heart of England*

2011 Ray Shill *Birmingham's Canals* History Press

2011 Shill Ray *Silent Highways The Forgotten Heritage of the Midland Canals* History Press

2011 Paul Collins *Black Country Canals* History Press

2013 R H Davies *Birmingham Canal Navigations Through Time* Amberley

2016 Ray Shill *A-Z of the Birmingham Canal Navigations* Canal Book Shop Audlem

Websites Wikipedia BCN Society

This entry therefore comprises:

- a list of all the component waterways as detailed in Wikipedia.
- a list of the CRT canals
- a short introduction to the system summarising its history and describing its main component canals;
- an appraisal of the canals that are now the responsibility of CRT based on the BW 1999 evaluations augmented by details from The Other Sixty Miles [R C-B 1991].

The following alphabetical list of BCN component canals is taken from Wikipedia where much fuller details on each of the component canals can be found.

- BCN Main Line (originally known as the Birmingham Canal) from Aldersley Junction (north of Wolverhampton) to Gas Street Basin (at the Worcester Bar in central Birmingham), using some of the Old Main Line canal.
    - Old Main Line, originally terminating in Birmingham at two wharfs now built upon: Old Wharf (adjacent to Gas Street Basin) and Newhall Wharf.
    - New Main Line, a revised route for the Birmingham Canal, double towpathed, largely progressing in straight lines using cuttings and tunnels.
- Bentley Canal (abandoned)
- Birmingham and Fazeley Canal (from Old Turn Junction eastwards to the Coventry Canal at Fazeley Junction, and thence north-west as far as bridge 78.)
- Digbeth Branch Canal

- Bradley Locks Branch
- Dudley Canal
    - Bumble Hole Branch Canal (part of a bypassed loop)
    - Dudley Canal Line No 1 (see also Dudley Tunnel)
    - Dudley Canal Line No 2 (about half dewatered; see also Lapal Tunnel; Netherton Reservoir)
    - The Two Locks Line (infilled)
- The Engine Arm
- Gower Branch Canal - linking the Birmingham and Wolverhampton levels, via three locks, at Tividale.
- Icknield Port Loop (part of the Old Main Line cut off by Telford's improvements, now serving as a feeder from Edgbaston Reservoir)
- Netherton Tunnel Branch Canal
- Rushall Canal
- Soho Loop (an old circuitous route cut off by Telford's improvements, originally with a branch, the Soho Branch to Soho Wharf, serving the Soho Manufactory)
- Spon Lane Locks Branch (between Bromford Junction and Spon Lane Junction on the Old Main Line - 3 locks, part of the original Wednesbury Canal, not to be confused with Spon Lane Branch, another name for Tat Bank Branch on the Titford Canal)
- Titford Canal
- Tame Valley Canal (a later canal cutting off some northern meanders)
- Walsall Canal (a more modern canal connecting the main line with Walsall and forming a big northern loop with the Wyrley and Essington Canal)
    - Anson Branch
    - Walsall Branch Canal (Town Branch)
- Wednesbury Oak Loop (part of the original Old Main Line, now incomplete)
- Wednesbury Old Canal - part of the original Wednesbury Canal
- Ridgacre Branch
- Wyrley and Essington Canal (bought by the Birmingham Canal Navigations in 1840)
    - Anglesey Branch
    - Birchills Branch
    - Cannock Extension Canal
    - Daw End Branch Canal
    - Lord Hay's Branch (Lords Hayes Branch) (abandoned)

The CRT is responsible for the following BCN waterways:

Birmingham & Fazeley Canal * (30 grade II listed buildings) M
Birmingham Canal Main Line and Old Main Line * (3 scheduled monuments, 1 Grade I, 1 Grade II*, 88 grade II listed building) H
Daw End Branch Canal
Dudley No. 1 Canal* (4 Grade II listed buildings) M
Dudley No. 2 Canal* (7 Grade II listed buildings incl. Netherton Tunnel Branch) L
Rushall Canal* (1 Grade II listed building) M
Tame Valley Canal* (19 Grade II listed building) M
Titford Branch * (10 Grade II listed buildings) M
Walsall Canal* (23 Grade II listed buildings) M
Wyrely & Essington Canal* (10 Grade II listed buildings) L

Canals * have BW Assessments of Significance (1999) on which the summaries below are based

Waterway: **Birmingham Canal Navigations**

Statutory designations:	Scheduled Monument	3
	Grade I	1
	Grade II*	1
	Grade II	202
	Total	207

Summary History and Description:

Promoted in 1767 by a number of prominent Birmingham businessmen, including Matthew Boulton and others from the Lunar Society the Birmingham Canal (known later as the Old Main Line) was surveyed by James Brindley and engineered by Brindley, Robert Whitworth and Samuel Simcocks. On 21 September 1772 the canal connected with the Staffordshire and Worcestershire Canal at Aldersley Junction via 20 locks and measured 22.5 miles mostly following the contour of the land but with deviations to factories and mines in the Black Country and Birmingham. A branch led to Matthew Boulton's Soho Manufactory. Vested interests of the sponsors caused the creation of two terminal wharves in Birmingham - Newhall wharf and Paradise Wharf, where the Birmingham Canal Company head office was built.

Birmingham Canal Company offices fronting Paradise Street. They backed onto the Old Wharf terminus. (Wikipedia)

Over the next century the Old Line, and its successor Main Line, became the focus of many other local canals and branches and connected with the Trent & Mersey and Coventry Canals via the Birmingham & Fazeley, with the Oxford (and the south to London) via the Warwick & Birmingham, with Walsall by the Walsall Canal, to the River Avon via the Stratford canal and with Worcester via the Worcester & Birmingham Canal.

The BCN is built on three main levels, each with its own reservoirs and linked by locks at various places on the network. These levels are:

- 453 feet (138 m) O.D., the Birmingham Level;
- 473 feet (144 m) O.D., the Wolverhampton Level;
- 408 feet (124 m) O.D., the Walsall Level

There are also stretches on their own levels. The Titford Canal and its branches were built at 511 feet (156 m) O.D., linked to the Titford Reservoir (Titford Pool). A feeder supplies water to the Edgbaston Reservoir. A short section of the BCN Old Main Line, at Smethwick Summit, was built at 491 feet (150 m) O.D. Pumps at either end were built to pump water used by the locks back to the summit – one at Spon Lane locks, and one at Smethwick locks: the Smethwick Engine. When the summit became too busy John Smeaton designed a scheme where it was lowered by 18 feet (5.5 m) to the Wolverhampton level, eliminating six locks and providing a parallel set of locks at Smethwick which improved traffic throughput. It also linked to the general Wolverhampton Level supply of water.

The BCN system prospered and expanded throughout the 19th century and was so well developed locally that a symbiotic relationship was established with the railways whereby by an Act of 1846 it was leased to the LNWR which guaranteed a 4% dividend. The railways built transhipment basins from 1850 onwards to provide boatage services to existing canal-side industries and in all there were 41 such basins – 18 LNMR, 16 GWR and 7 Midland. In its complete form the system was supplied with water by six reservoirs and 17 pumping stations and in 1906 the BCN totaled 159 miles with 216 locks.

However subsidence was starting to prove a problem and the Two Lock Line closed in 1909 and the Lappal Tunnel in 1917. After WWI competition from road transport proved more serious and with the contraction of coal mining after WWII traffic fell away and some main branches started to be closed including the locks to Huddlesford in1954, part of the Bentley in 1961, the Park Head locks on the Brierley Hill in 1962 and the Cannock Extension north of the A5 in 1963. By 1973 some 52 miles had been abandoned while even earlier much of Birmingham's civic centre had been built over city centre basins. However in the 1960s growing appreciation of the waterways as an asset slowed closures and indeed reversed some of them.

As noted above the BCN was extensive enough that its own self-contained trade thrived with the coming of the railways and the railway interchange trade on a score of transhipment basins and wharfs peaked at more than a million tons in the first decade of the 20th century when it accounted for a seventh of the trade on the

West Midlands system (see Foxon 1998 *The Industrial Canal Vol 2 The Railway Interchange Trade*. However, traffic on the private and railway basins declined after World War I and even more so after World War II and by the end of the 1960s all the interchange basins had closed. Chillington Basin (1252658) at Monmore Green is Grade II listed and is now of such rarity as to be of national significance.

Now much of the central waterways system is restored and attractively landscaped and there are ambitious schemes to restore outlying parts of the system such as the Lichfield Canal. The Lichfield Canal, as it is now known, was historically a part of the Wyrley and Essington Canal, being the section of that canal from Ogley Junction to Huddlesford Junction, on the Coventry Canal, a length of 7 miles. The branch was abandoned in 1955, along with several other branches of the Wyrley and Essington, and much of it was filled in. Restoration plans were first voiced in 1975, and since 1990, the Lichfield and Hatherton Canals Restoration Society have been actively engaged in excavating and rebuilding sections of the canal as they have become available. Major projects have included an isolated aqueduct over the M6 Toll motorway, ready for when the canal reaches it.

Statement of Significance:

The BCN is of immense significance historically and still is as the hub of the national network. It heritage value is indicated by the fact that in 1999 there were a total of 3 scheduled monuments, 1 Grade 1, 1 Grade ll* and 202 Grade ll listed buildings on the canals which were the responsibility of British Waterways. The surviving heritage varies across the system hence the variation in Heritage Values for each canal. Without detailed consultation with local interest societies and field verification it would be difficult to identify the assets on the abandoned parts of the system and assess their significance. Accordingly the Statements of Significance and overall Heritage Values are based on those made by BW in 1999 for those canals now owned by the CRT.

Waterway: **Birmingham Canal Main Line**

Date of opening: 1772 / 1838
Overall heritage value: 5 High

Summary Description and History:

Statement of significance:

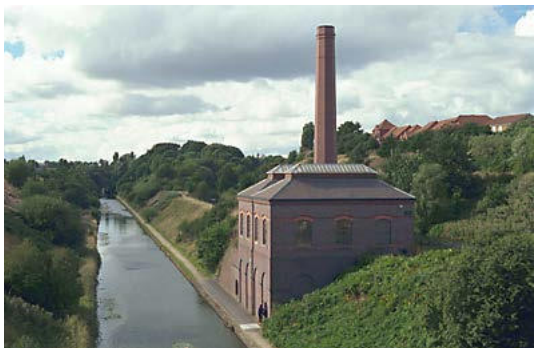
The original Birmingham Canal was authorised in 1768 and engineered by Brindley, Simcock & Whitworth. It ran for 22½ miles, from the Staffs & Worcs at Aldersley Junction, to Birmingham via 29 locks. It carried mainly coal and was opened by 1772 (John Smeaton was employed as engineer in c1784-1789). This became the Old Main Line. In 1825-1838 the BCN was substantially modernised by Telford, and the New Main Line was cut, reducing Brindley's 22½ miles to 15.

The Old Main Line (now much repaired) is characterised by narrow locks and small C18 brick bridges such as at Smethwick Top Lock Wolverhampton Level and Smethwick Bottom Lock.

(Left) Smethwick Top Lock and footbridge (IoE 219244 D R Smith): (Right) Smethwick Bottom Lock (IoE 219246 D R Smith)

The New Main Line is a superb work of engineering, with double bridges, twin towpaths, elegant cast iron bridges, aqueducts, mid-canal islands (originally with toll houses upon them).

Spanning Telford's huge Smethwick cutting is his majestic Grade I 150 foot span cast iron Galton Bridge erected in 1829 by the Horseley Ironworks and his Grade II* Engine Arm Aqueduct (1391874) The latter, a 52 foot span structure consisting of an 8-foot wide cast iron trough and flanking towpaths is supported by five ribs and was built in 1825 to carry a feeder from the Edbaston Reservoir to the adjacent Old Main Line. It is a cast iron masterpiece, the towpaths being supported by cast-iron arcades of Gothic styled arches and columns.



(Left) Smethwick Junction with two Horseley Ironworks Bridges 1828 (Wikipedia, Oosoom)
(Right) Smethwick Cutting and New Pumping Engine House (IoE 219213 D R Smith)

(Left) Galton Bridge (IoE 219212 D R Smith): (Right) Engine Arm Aqueduct (Wikipedia Oosoom)

There are many junctions and former side arms, loops and branches. Such has been the repeated alterations to the Main Line that few early cottages or canal buildings have survived though there are significant later buildings such as at Gas Street Basin, Smethwick Cutting Cambrian Wharf and Oldbury Yard. The landscape typifies the heart of Birmingham and the Black Country: a strange mix of urban/industrial and unkempt/overgrown spaces. Gas Street area has been heavily re-developed. The New Main Line, with its broad span, straight lines and great cuttings and embankments, dominates its immediate vicinity.

Some of the earliest branches such as the Wednesbury Old Canal which was opened in 1769 have been partially abandoned and in-filled in the 1960s. These losses were chronicled in 1991in Chester-Browne's *The Other Sixty Miles: a survey of the abandoned canals of Birmingham and the Black Country* summarised here:

In central Birmingham the Old Wharf which was one of the two original termini of the Birmingham canal and was fronted by the Navigation office has been built over with a water feature of a new hotel now marking its basin. The Newhall Branch which led to the other terminus of the Birmingham Canal has disappeared when the Civic Centre was redeveloped in the mid 20th century, along with the Gibson's Arm and Baskerville basin while a towpath bridge survives at the entrance to the Whitmore Arm on the north side of the canal. The once extensive Digbeth Basins

at the end of the Digbeth Branch are mostly filled in and built on. The Birmingham Heath Branch of the Soho loop now terminated at Hockley Port and the stretch to Soho Wharf has closed. Only towpath bridges over the ends to the nearby loop to Avery's Basin and Soho Foundry remain while the Cape Arm a loop of the Old Main Line to the other side of the New Main Line through the GKN Works has similarly mostly gone. Further loops and branches such as that to Phoenix Works have largely gone as have evidence of Brindley's upper locks and some of Smeaton's works to lower the summit but remnants of the original lowest three locks survive along side Telford's locks.

In the Oldbury area, the Oldbury Loop itself , an early casualty of straightening the Old Main Line in 1820, served works along its banks till the 1950s but has mostly since disappeared. Somewhat more survives of the privately built Houghton (Chemical) Arm to the south of the Old Main Line. The numerous loops and branches off the New Main Line close to its junction with the Wednesbury Old Canal have mostly gone as has Dixons Branch of the 1820s, near Dudley Port, which led Horseley Colliery Arm. In the Tipton area where the two main lines reconnect and are joined by the Dudley Canal, the canal landscape is particularly complicated with the remains of the Tipton Green and Toll End Communication (1783-1809) and its locks, most of which have gone, while the Lord Ward's Branch which pre-dated the Dudley Canal was filled in but has been re-excavated and is part of the Black Country Museum where some interesting bridges have been re-erected including the lift bridge from the Tipton Railway Basin.

The winding Old Main Line was shortened by some 3 miles by the building of Coseley Tunnel (1319700) in 1837 creating the Wednesbury Oak Loop the northern part of which is still open to Bradley Yard but only vestiges survive with no notable features of the remainder and of the Bradley Loop, the Bradley Branch and the long Deepfields basins.

Coseley Tunnel North Portal - note Towpaths either side. (IoE 442574 D R Smith)

At Wolverhampton there were numerous small branches and basins including four railway interchange basins some of which survived until recently. Chillington Interchange Basin (1252658 is designated and the sites of the others should be assessed for protection.

Elements of considerable significance:

Galton Bridge and Galton Cutting, Engine Arm Aqueduct, Steward Aqueduct (1077161), Smethwick Engine House (1005887), Summit Bridge, Smethwick New Pumping House (1077154) Chillington Interchange Basin (1252658).

(Left) Steward aqueduct (IoE 219242 D R Smith): (Right) Chillington Interchange basin (IoE 435701 Peter Garratt)

Elements of some significance: Double-arched bridges, Island sites, Oldbury Yard, railway interchange basins Tipton Gauging House (1077148).

Tipton Gauging House (IoE 219202 J J Sheridan)

Waterway: **Birmingham & Fazeley Canal**

Date of opening: 1789

Overall heritage value: 3 Med

Summary Description and History

Statement of significance:

The Birmingham & Fazeley Canal runs from Farmer's Bridge Junction on the Birmingham Canal Main Line to its junction with the Coventry Canal at Fazeley. John Smeaton was the engineer and some of the structures such as the squat seven arched aqueduct carrying the canal over the River Tame (1291469) are typical of the 1780s engineering.

(Left) Ashton lock no 1 (IoE 217400 Walter Chinn):
(Right) Aqueduct over the River Tame (IoE 217362 Brian R Edwards)

Similarly the short Curdworth Tunnel (though it incorporates a towpath) is a relatively early example of canal tunnel engineering .

Curdworth Tunnel (IoE 443797 Keith Wise)

The canal is 20¾ miles long with 38 locks; 13 on the spectacular (hemmed-in by Birmingham's buildings) canyon-like Farmer's Bridge flight. There is a good group of buildings and structures at Farmer's Bridge. The urban lengths of the B & F are characterised by factory walls, blocked side arms with towpath bridges and modern

road bridges interspersed with older brick examples. A greater number of older brick bridges survive in the more rural lengths (eg near Curdworth) and there are several lock cottages which have value for their scarcity on this canal. The junction at Fazeley has a fine toll house and roving bridge.

(Left) Junction House at the junction of the Fradley to Fazeley and the Minworth to Fazeley branches, (IoE 272795 David R. Grounds): (Right) Drayton Turret Footbridge (IoE 272768 David R. Grounds)

Drayton Turret Footbridge is an unusual example of a high-level footbridge with Gothic turrets/piers at either end – a piece of whimsy reputedly built to placate Sir Robert Peel a local landowner. It is being restored by CRT with HLF funding.

Elements of considerable significance: Farmer's Bridge Flight, Junction House/ roving bridge, Fazeley, Drayton Turret Footbridge, River Tame Aqueduct

Elements of some significance: Curdworth Tunnel, Kingsbury Swivel Bridge

Kingsbury Swivel Bridge (IoE 309273 Denis True)

Waterway: **Dudley No 1 Canal**

Date of opening: 1779/1792

Overall heritage value: 3 Med

Summary Description and History:

Abraham Lees was the resident engineer while the Dudley Tunnel was surveyed by John Bull and John Snape, checked by Thomas Dadford the Elder. Constructed to carry coal from mines in Dudley area to Stourbridge. 2¼ mile long canal built in 2 sections: first from the Black Delph junction with the Stourbridge canal to Parkhead in 1776-79, second an extension through Dudley Tunnel to a junction with the Birmingham Canal in 1785-92. Tunnel links Lord Dudley's coal and lime works at Castle Mill. John Pinkerton was contractor for the tunnel until his dismissal in 1787 for unsatisfactory work.

Statement of significance:

[R C-B 1991] Dudley Tunnel and the linking lime works at Castle Mill (where the canal is open to sky and then enclosed in a further, shorter tunnel built by Lord Dudley) are the main features of interest, followed by Delph Locks (1228374) which were rebuilt in 1858 and reduced from 9 to 8 locks at that time. Delph Locks form a group with a brick and slate stable block at their top, and a cast iron roving bridge.

(Left) Delph Locks (IoE 217976 Colin Cundy):
(Right) Tollhouse of original Delph flight 1779 (IoE 403768 Colin Cundy)

The Grazebrook Arm serving Netherton Ironworks, the Presnett Canal (Lord Ward's canal) and the Two Locks line providing a short cut to Dudley Canal No 2 have largely gone and only late bridges remain.

The Delph flight of locks retain remnants of the earlier locks made redundant when the flight was straightened in 1858

Elements of considerable significance:

Dudley Tunnel and associated lime works; Delph Locks, canal stables and footbridge.

(Left) Horseley Bridge 1858 Two Lock Line (IoE 442607 D R Smith):
(Right) Canal Stables at Delph Locks (IoE 217975 Colin Cundy)

Elements of some significance: Former pumping station, locks and group of cottages and office (E C20) and earlier stable block at Park Head

Waterway: **Dudley No 2 Canal**

Date of opening: 1798

Overall heritage value: 2 Low (BWB)

Summary Description and History:

Josiah Clowes engineer (1793-96), succeeded by William Underhill and Abraham Lees. Thomas Dadford Elder (c1785-7) and Robert Whitworth (Inspection, 1796) also involved. Extension of original Dudley (No 1) Canal from Park Head Junction. Originally to Selly Oak Junction on Worcester & Birmingham via Gorsty Hill and Lapal Tunnel. The portals to Lapal Tunnel were filled in in 1972 and the section of tunnel under the M5 filled with concrete. [BW]

[R C-B 1991] The only early bridge in the eastern abandoned section carried Harborne Lane over the line of canal at Selly Oak [R C-B 1991 Fig 13] and as one of the oldest bridges on the BCN should merit protection (if it still survives). Otherwise there are scant remains other than foundations of the engine house and the embankment till Hawne Basin where the canal commences. There are plans to reopen sections of the detached Lapal length and work has started at Harborne Wharf clearing the infill.

At Bumble Hole the branches off the Boshboil Arm and the Withymoor Branch have left scant trace other than a towpath bridge while cast iron towpath bridges remain at either end of the Two Lock Line connecting Dudley Canals 1 and 2 though the line itself has gone. The Cobb's Engine House (SM) pumped water from local mines to supply the canal.

(Left) Bumble Hole Junction with Cobbs Engine House in distance (IoE 442609 D R Smith):
(Right) Horseley Ironworks Bridge 1858 (IoE 442606 Colin Cundy)

Statement of significance:

Few remaining historic features, with exception of Horseley Iron Works bridges. Typical Black Country landscape of unkempt open spaces and urban fringes. Netherton Tunnel branch joins at Windmill End Junction. Netherton, built in 1850s, was the last and the largest canal tunnel to be built in UK. It had twin towpaths and was gas lit in working days.

(Left) Netherton Tunnel (IoE 219226 J J Sheridan): (Right) Netherton Tunnel 1858 (Wikipedia Oosoom)

Elements of considerable significance: Group of bridges and engine house at Windmill End junction, Netherton Tunnel, Cobb's Engine House (1005899)

Elements of some significance: Leasowes Aqueduct

Waterway: **Wryley & Essington**

Date of opening: 1797

Overall heritage value: 3 Low (BWB)

Summary Description and History:

Authorised originally under an Act of 1792 to build a canal from the Birmingham Canal near Wolverhampton to coal mines near Wyrley Bank the canal construction was extended from Sneyd by a second Act in 1794 to join the Coventry canal at Huddlesford and also authorised a branch to the Hay Head Limeworks, which became known as the Daw End Branch, and a short branch to Lords Hayes. Commencing at Horseley Fields Junction the canal was engineered by Willian Pitt and was completed throughout in 1797 and section to Wyrley which had opened in 1795 thus became virtually another branch. The 16 mile section to Ogley top lock near Brownhills was a winding summit level and then 30 widely spread locks descended the 7 miles to Huddlesford. This eastern end section, latterly known as the Lichfield Canal, became derelict and was abandoned under an Act in 1954 but is nowbeing partially restored.

When the Wryley & Essington merged with the BCN in 1843 the 3.4 mile the Bentley Canal was built from Wednesfield to link, via 10 locks and the Anson Branch, with the Walsall Canal at Darlaston. The Bentley canal was abandoned in 1961 and most of it has been filled in though some bridges remain. The various branches totalled a further 24 miles.

Statement of significance:

The Wyrley & Essington had many side arms and branches, evidenced by the survival of towpath bridges. Large numbers of bridges of many kinds are the dominant feature of the Wyrley & Essington and there is little other remaining heritage.

Several of the bridges have blue brick abutments and iron decks and parapets with traceried rails while others are the classic Horseley ironworks cast iron arches while the cast iron beamed bridge at Pensall Works is also Horseley Coal & Iron Company of a different style and dated 1824.

(Left) Riddion Bridge Daw End Branch (IoE 219186 Trevor Lucas): (Right) Pensall Works Bridge (IoE 219181 Trevor Lucas)

The Anglesey Branch is an example of a feeder (from Cannock Reservoir) which was made navigable for boats.

The Anglesey Branch of the canal, widened and made navigable 1850, is carried by an iron trunk aqueduct over the South Staffordshire Railway (opened 1849) while a second aqueduct carries the canal by an iron trunk aqueduct over the Walsall-Bloxwich Railway both are inscribed "Lloyds Foster and Co, Engineers, Wednesbury 1856".

(Left) 1829 Towpath Bridge, Ogley Junction with the Anglesey Branch (IoE 219183 Peter Garratt): (Right) Anglesey Branch Aqueduct (Geograph, Stephen McKay)

[R C-B 1991] The lower part of the Wryley Branch has now largely gone but some of the features of the northern part survive as a nature reserve but the Essington Branch has mostly disappeared. The Wyrley Bank Branch built in 1857 though abandoned in 1954 largely survives but Lord Hay's Branch opened in 1800 has mostly gone. The Cannock Extension Canal was built 1858-63 but the section north of Watling street was abandoned in 1963 and much of it is dry or built over. The privately built Gilpen Arm has disappeared but parts of the Slough Arm are in water and managed as a footpath while wharf buildings survive at the end of the Sandhills Branch. The ambitious plans to re-open the abandoned Lichfield section are slowly and impressively being realised.

Elements of considerable significance: Brownhills Aqueduct on Anglesey Branch, Raybould's Bridge, Pelsall Bridge

Elements of some significance: Industrial archaeological remains of former wharves/arms /branches

Waterway: **Walsall Canal**

Date of opening: 1799

Overall heritage value: 3 Med (BWB)

Summary Description and History

The canal runs from Ryders Green Junction where it meets the Wednesbury Old Canal and immediately drops through the eight Ryders Green Locks to the 408foot OD Walsall Level The short Walsall Town Arm at Walsall Junction leads into Walsall itself while the main canal rises through the eight locks of the later Walsall Junction Canal to meet the Wryley & Essington Canal at Birchills Junction totalling some 8 miles and 16 locks with one significant aqueduct - the James Bridge Aqueduct (1186743) carrying Walsall Canal over Bentley Mill Lane, and formerly over River Tame. Attached to its central pier on the south side is a cast iron plate inscribed: "MDCCXCVII".

James Bridge Aqueduct (IoE 219163 Trevor Lucas)

This was very much a link canal built in distinct stages. It started life as the Broadwaters Extension to the Wednesbury Canal which opened in 1785 to serve collieries In Moxley while from the other direction, the Birchills Branch of the Wyrley and Essington Canal reached Bloxwich Wharf to the north-west of Walsall by 1798 and the Walsall section was completed in 1799. The short gap between the Birmingham Canal Navigations line to Walsall and the Wyrley and Essington Canal's Birchills Branch was to last 40 years and therefore of concern to businessmen to the north of Walsall, whose access to the south was by a very circuitous route and in 1839 the BCN agreed to build a connection. The Walsall Junction Canal was completed in March 1841 its 0.6 miles containing eight locks and completing the through route. Meanwhile in 1844 The Tame Valley Canal opened to provide a link from the Walsall Canal at Ocker Hill to the Birmingham & Fazeley at Salford junction.

Walsall Junction Canal, Birchhills (IoE 219169 Lorna Freeman)

The 1.5 mile long Anson Branch was completed in 1830 to serve the coal mines and a limestone quarry in Bentley which were owned by the Earl of Lichfield. From a junction to the west of James Bridge Aqueduct it left the Walsall canal in a north-easterly direction and was almost straight for most of its length, apart from near the mines, where it turned to the north to reach a wharf, from which horse tramways connected to the Bentley mines and furnaces. By 1832, several blast furnaces had also been built near to the terminal basin. In order to tap into the mineral resources further to the north, the Bradford Branch was proposed, but only a small section was built as a canal, and the rest was constructed as a narrow-gauge tramway. It was completed in 1840, and was owned and operated by the canal company. The 3.5 mile long Bentley Canal built by the newly created BCN connected the Anson Branch to the Wryley & Essington Canal with 10 locks in 1843. The section above the Bentley Canal junction was abandoned as a navigation in 1956, and the Bentley Canal and the rest of the Anson Branch were abandoned in 1961. Both waterways are still partly watered though un-navigable and built over in parts. The single arched aqueduct carrying the Anson over the River Tame survived in 1991but the part north of the M6 has mostly gone as have most of the locks on the Bentley Canal. The remains of the branch, covering an area of 13.6 acres (5.5 ha), have been designated as a site of local importance for nature conservation (SLINC) by Walsall Council.

Statement of significance:

Walsall Canal runs from Riders Green Junction to its terminus at Walsall Wharf. The few surviving structures of heritage value, include the Ryders Green and Walsall Locks and the group of buildings at Walsall Top Lock, including the former c.1840s toll house (1077176 and Birchills Boatmen's Mission (1271546): a rare and unusual example of this building type. The boatmans rest was one of three in the West Midland canals operated by the Incorporated Seamen and Boatman's Friend Society. The other two have since been demolished.

There are a few surviving early C19 bridges, mainly taking the towpath over side arms or factory basins and several mid-late C19 elegant cast iron bridges, especially at the junction with the Tame Valley Canal c. 1844 (1229489, 1342694)

(Left) Toll House and Boatman's Mission, Top Lock (IoE 454413 Lorna Freeman): (Right) Northern footbridge at Tame Valley Canal junction (IoE 219382 Steve Davis)

[R C-B 1991] At the southern end the Wednesbury Old Canal had several long branches including the long Balls Hill Branch and the shorter Dartmouth, Halford, Jesson Branches of which little remains of any. The Ridacre Branch however is still watered. Further to the north, little notable survives of the Haines and Danks Branches, the Great Bridge Railway Basins or of the early Ocker Hill Branch (1774) which had pumping engines to recirculate water from the Walsall Canal but the Ocker Hill Tunnel Branch is still watered. Similarly the upper part of the Gospel Oak Branch, the Monway Arm, the Broadwaters Arm, the Bilston Branch, the Willenhall branch and the upper Bradley Locks Branch are scarcely traceable.

Elements of considerable significance: James Bridge Aqueduct, Group of buildings at Walsall Top Lock: Boatmen's Mission / toll house / pub

Waterway: **BCN Titford Branch**

Date of opening: 1837

Overall heritage value: 3 Med (BWB)

Summary Description and History

Authorised under the Birmingham Canal Act 1768 which created the original Birmingham Canal, the Titford Branch was originally constructed as a feeder from Titford Pool, a reservoir made in 1773-4 to supply the canal at Oldbury Junction. At a height above sea level of 511 foot OD the Titford Pool was one of the original water sources for the 491 foot Smethwick Summit Level of Brindley's Birmingham Canal. It was made navigable in 1837, with the addition of six locks,

At the top lock stands the Titford Engine House (1288246) built to pump water back up the six locks from the Wolverhampton Level. The top lock is also the junction with the Tat Bank Branch (or Spon Lane Branch) which was the original feeder to the Smethwick Summit, and is now a feeder made by Telford to Rotton Park Reservoir which itself feeds the Birmingham and Wolverhampton Levels of the BCN. It was later made navigable for a part of its length to the Stourbridge Railway at Rood but is now impassable and without towpath access. Titford Pool, Tat Bank Branch and the top pound of the Titford Canal are the highest point of the BCN.

(Left) Titford Top Lock, Titford Pumphouse, and the start of the Tat Bank Branch (Wikipedia Oosoom): (Right) Top Lock in 1999 (IoE 219234 J J Sheridan)

Statement of significance:

The Titford Branch climbs away from the Old Main Line (Wolverhampton Level) through six locks to the Titford Pool Reservoir (1774) and the sites of numerous former colliery basins, factory arms and brickworks. The six Oldbury Locks retain much historic fabric and a single storey brindled brick cottage stands at Lock No 1.

The former Titford Pumping Station (1837) with tall proportions, adjoins Lock No. 6 and the Spon Lane Branch. Its engines back-pumped from the Wolverhampton level to the Titford Canal. Derelict for many years it is now the headquarters of the Birmingham Canal Navigations Society.

[R C-B 1991] At the southern end the Portway Branch, one of the two terminal arms opened in 1837 but was abandoned in 1960 and has now been filled in while the Causeway Green Arm, the other terminal arm extended in 1858, has also mostly gone.

Elements of considerable significance: Titford Pumping Station

Elements of some significance: Oldbury Locks, Langley Green Bridge.

Waterway: **Tame Valley Canal**

Date of opening: 1844

Overall heritage value: 3 Med (BWB)

Summary Description and History:

The Tame Valley Canal engineered by Messrs Walker & Burgess was authorised by an Act of 1839 is 8. 5 miles long and opened in 1844. Built as an avoiding line, to cut out the congested Farmer's Bridge locks, it is one of the latest built canals, has straight lines, massive embankments, twin towpaths throughout and seven aqueducts including one over the earlier Grand Junction Railway. Starting from the Walsall Canal it runs at that level for 5 miles until it drops 106 feet in 13 locks at the Perry Barr Locks to terminate at Salford Junction where it meets the Birmingham & Fazeley canal and the Grand Union Canal. The aqueducts show a variety of engineering – rock-faced sandstone and brick at Spouthouse, stone and iron trough at Walsall Road and brick over the River Tame.

(Left) Spouthouse aqueduct (IoE 219364 John M Holt):
(Right) Walsall Road Aqueduct (IoE 437039 Steve Davis)

Statement of significance:

The 13 locks between Salford Junction and Perry Bar had back-pumping steam engines (located near Deykins Avenue) originally returning water via an iron main from the Erdington Level to the Walsall Level. The uniform bridges, with brick abutments and slightly cambered cast iron decks and pierced parapets are a feature.

Seven aqueducts including; Hateley Heath (composite iron and stone), Grand Junction Aqueduct (iron and brick over a pre-existing railway line) and River Tame Aqueduct – an imposing brick structure with stone dressings.

(Left) Perry Barr Locks Bridge GV II Footbridge over canal. 1841-4 (IoE 409962 J J Sheridan)
(Right) Hateley Heath Aqueduct (IoE 219359 John M Holt)

(Left) Tame Aqueduct (Wikipedia Ambrosen):
(Right) Lock, Cottage and Road Bridge, Deykin Avenue, IoE 217020 Steve Davis)

Tame Valley Canal features uncommon mid-canal piers, mainly for stop planking insertion for maintenance. There are cottages at Perry Barr Top Lock (also a stable and gauging weir house) and at Deykins Avenue. These share a common architectural style and are rare urban survivals.

Elements of considerable significance: Grand Junction Aqueduct, Perry Barr Locks (largely unaltered 1840s work), 2 lock cottages, Iron accommodation bridges.

Elements of some significance: Remaining aqueducts, Earthworks – embankments and cuttings, Mid-canal piers.

Waterway: **Rushall Canal**

Date of opening: 1847

Overall heritage value: 2 Med (BWB)

Hill Farm Bridge c.1847 (IoE 219344 Steve Davis)

Built under an Act of 1844 to connect the Daw End Branch to The Tame Valley Canal the 2.75 mile long canal was engineered by James Walker and completed in 1847. It has two locks and a cottage at its northern junction and a flight of seven locks with a second lock cottage.

Statement of significance:

A minor late BCN Canal with typical late features such straight lines and a wide towpath.

Elements of some significance: Top Lock Group, Hall Farm Bridge (1077126)

Waterway: **Blyth Navigation**

Status:	abandoned river navigation
Overall Heritage Value:	1
Owner/operator:	EA (formerly Anglian Water)
Line:	Halesworth to Southwold 7 miles
Date of opening:	1761
	Disused 1911, abandoned 1934
Statutory designations:	none

Summary Description and History:

The Blyth Navigation in Suffolk ran 7 miles (11 km) from Halesworth to the North Sea at Southwold. As built by Langley Edwards the navigation had four locks and a tidal staunch located just above Blythburgh bridge. The locks were built to accommodate wherries 50ft by 14 ft and had slightly convex walls. A fifth lock was built privately to increase water level above Halesworth to reach a maltings. Trade declined in the late 19th century with the estuary silting up and the Navigation company was insolvent by 1884 and traffic ceased c.1911. The Navigation was formally abandoned in 1934. There have been sporadic efforts to restore the canal for navigation, but the resultant flooding of bordering land has made this unpopular with riparian owners.

Modern Sluice below Mells bridge (Wikipedia Nigel Chadwick)

Statement of Significance:

The navigation is quite early being built in 1761 and the disused locks, which have not been substantially rebuilt, are therefore of interest as early survivals and display timber features perhaps similar to those on the River Stour.

Elements of considerable significance: none

Elements of some significance: Halesworth Lock and remains of other three locks

Main References: P-T

Websites: Wikipedia IWA: waterways.org.uk

Waterway: **Bradford Canal**

Status: Abandoned – derelict and mostly in-filled
Overall Heritage Value: 1
Owner/operator: various
Line: From Leeds & Liverpool Canal near Shipley to centre of Bradford, 3 miles
Date of opening: 1774
Closed 1922
Statutory designations: none

Summary Description and History

In the wake of plans to construct the Leeds and Liverpool Canal, passed by Parliament in 1770, a bill was approved in 1771 for a canal from Bradford to join the Leeds and Liverpool at Shipley. The canal had broad 10 locks, climbing 58 feet. They were arranged as a 3-rise staircase at Crag End, 2-rise staircases at Pricking Mill, Oliver Locks and Spink Well, and a single lock at Windhill, Shipley.

Problems of polluted water supply latterly forced all water to be pumped and the former 1872 Pumping Station survives as a dwelling next to a lock-keepers cottage. There have been plans to reopen the canal using a mile of original route and thereafter a new channel.

(Left) Junction with Leeds & Liverpool canal (www.penninewaterways.co.uk):(Right) Pumping Station 1872 (www.penninewaterways.co.uk)

Statement of Significance:

Very little survives of this comparatively early and once-busy canal.

Elements of considerable significance: none

Elements of some significance: Lock-keepers cottage and 1872 Pumping Station

Main References: BR/P-T/RE/RR

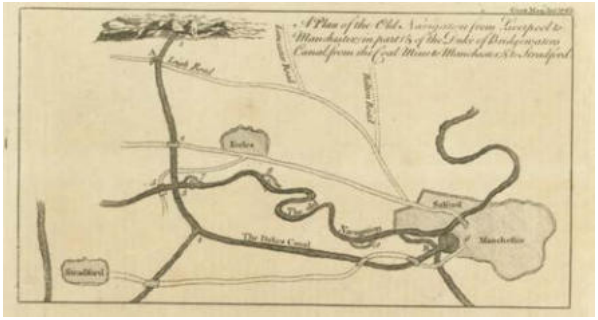
Websites: Wikipedia

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway: **Bridgewater Canal**

Status:	Operational	
Overall Heritage Value:	5	
Owner/operator	Peel Holdings	
Line:		
Bridgewater Canal	main line	
Worsley to Manchester Castlefield		7 miles
Stretford to Runcorn (open 1776)		26 miles
Inc: Hulme Locks Branch		
Leigh Branch Worsley to Leigh (1799)		6 miles
Preston Brook Branch		1 mile
Runcorn & Weston Branch (1859)		1.25 miles
Mersey & Irwell Nav. Mostly absorbed into Manchester Ship Canal		
Worsley Underground canals		52 miles

Date of opening:	1761onwards	
Statutory designations:	Scheduled Monument	1
	Grade II*	1
	Grade II	54
	Total	56



Plan of the crossing of the Irwell Navigation by the Duke's canal.

Summary Description and History:

Commissioned by the Duke of Bridgewater and built by James Brindley in association with John Gilbert, it was opened in 1761 from Worsley to Castlefield, Manchester crossing the River Irwell by Barton Aqueduct thus creating a lucrative coal trade from the Duke's mines to Manchester. By avoiding the use of locks the canal had to follow the contours where possible and cross several roads and rivers requiring a number of small squat aqueducts. Most of Brindley's aqueducts were much less spectacular the famous one over the Irwell - that over the Lumb Brook and the adjoining road being more typical.

Brindley's Barton Aqueduct over the River Irwell (left) was a wonder of its day while the Lumb Brook Road Aqueduct (above) is more typical of Brindley's engineering. (IoE Number: 58948 F. Bryan Basketter)

The canal was extended from Stretford, Manchester to Runcorn by 1776 and then 6 miles from Worsley to Leigh in 1799. It was connected to the Trent & Mersey Canal in 1776 by the short Preston Brook Branch opening up trade to the Potteries and the Midlands.

Navigable throughout its history, it is one of the few operating canals in Britain not to have been nationalised, and remains privately owned. Most of the canal is on one level until Runcorn where, in 1773, it originally dropped down to the Mersey by a flight of 10 broad locks in staircase pairs. In 1827 a new flight of 10 locks was constructed to ease congestion and to enter a tidal basin 350 yards downstream from the old line.

In 1838 three locks at Hulme Manchester, connected the canal with the Irwell and in 1844 the Mersey & Irwell navigation was bought by the Bridgewater. The short Runcorn & Weston Branch was added to the system in 1859 but though the company was bought by railway interests in 1872 to form the Bridgewater Navigation Company, further improvements were made and another dock added at Runcorn.

(Left) Barton Swing Aqueduct over the Manchester Ship Canal (Wikipedia G-Man): (Right) The Packet House, Worsley (Wikipedia Parrot of Doom)

The Act for the Manchester Ship Canal was passed in 1885 providing for the purchase of the Bridgewater Canal and the Mersey & Irwell Navigation which was needed for the Ship Canal.

On the Bridgewater itself, commercial traffic, which at one time had been immensely profitable with swift iron boats introduced in 1843 to provide a daily service to Runcorn, continued until 1974, now leisure boats are the main users. The old line of locks in Runcorn fell into disuse in the late 1930s, and they were closed under the Ship Canal Act of 1949 and filled in. The Ship Canal Act of 1966 allowed the closure and demolition of the newer line of locks which had been opened in 1827 to supplement the original locks. The Runcorn Locks Restoration Society formed in 2015 believes that the proposed new road crossing of the Mersey may allow a realignment of the Bridge approach road and the restoration of the original flight of locks – thus re-opening the link to Runcorn Docks, the Runcorn and Weston Canal, the River Mersey, the Manchester Ship Canal, and the River Weaver. The masonry of the original locks may survive having merely been in-filled and there are plans to build a marina halfway down the flight when the locks are restored. The later flight of locks has been largely obliterated.

Delph Basin, Worsley to coalmines (Wikipedia Parrot of Doom)

At Worsley, two entrances, built years apart, allow access to the Navigable Levels for the specially built M-boats (also known as Starvationers), the largest of which could carry 12 long tons (12 t) of coal. Inside the mines 52 miles of underground canal on four levels, linked by inclined planes, were constructed. The mines ceased production in 1887.

An industrial complex developed at Worsley, most of which has gone, but the dry docks (1215143) with their 19th-century canopies may date from 1761 and are thus possibly the earliest, still operating, canal dry docks.

Worsley Dry Docks and 19th century boathouse (IoE 400046 F. Bryan Basketter) ,

The Moss Canals

When the canal was originally proposed there was to be a connection westwards from Worsley towards the Mersey & Irwell at Hollins ferry near Warrington. A short length had been constructed by 1760 to Botany Bay Wood before the proposal was abandoned. A short section of this waterway was used when the Leigh Branch was built but the remainder south of the junction at Keepers Turn though used to transport fill for reclamation of Chat Moss had closed by the middle of the 19th

century. A second waterway to the east leaving the main line at Bittern Pits Wood was built around 1795 for the same purpose and remained watered until the early 20th century. The remains of the Botany Bay canal are of interest as relatively unaltered remnants of the pioneer phase of canal building.

Footbridge between Barton Road and The Green, Worsley 1901. Built for the 1st Earl of Ellesmere. Wrought iron with dressed stone abutments. (IoE 211988 Patrick Norris)

Stone wash-wall, Botany Bay Woods (www.penninewaterways.co.uk)

The 6-mile long Leigh Branch of the Bridgewater was opened in 1799 makes an end on connection with the Leigh Branch of the Leeds & Liverpool Canal which opened in 1820 and connects with its main line at Wigan. Some of the features on the Leigh Branch such as Hall House Bridge (1163001) and Great Fold Bridge appear to be original but most other bridges such as Astley Bridge appear later than 1799.

The Hulme Locks Branch which connected the canal to the River Irwell by three locks in1838 is largely derelict

The Runcorn and Weston Branch which was constructed in 1859 to link to the River weaver is derelict

(Left) Hall House Bridge, Leigh Branch (IoE 213490 Peter Sargeant): (Centre) Hulme Locks Branch (IoE 387950 Martin Malies); (Right) The derelict entrance from the Weston Canal (Wikipedia Ian Cardinal)

Statement of Significance:

The Bridgewater Canal needs little introduction as regards significance. Often considered the first ‘true’ canal in England the immediate commercial success of the Bridgewater Canal certainly inspired the development of the canal system. Much of the canal, being on one level, survives and all early features merit recognition. Worsley Old Hall(11882960) was the base of Duke of Bridgewater and James Brindley when the canal was being constructed while Bridgewater House (1330334), Runcorn served the same purpose at the other end of the system.

Bridgewater House, Runcorn (IoE 56039 Martin Byrne)

There is no easy access to the underground Navigation Levels but their remains are of great significance and the entrances are a scheduled Ancient Monument. The full extent of the four levels and numerous side branches is thought to be about 52 miles. Bridgewater 250 Chapter 5 Underground Worsley discusses in some detail the underground 'Navigable Level' as it was known.

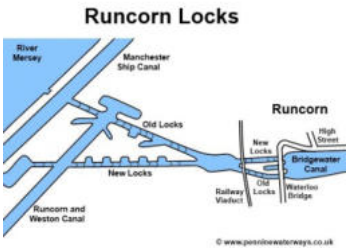
Castlefield Basin (Wikipedia Clem Rutter)

The basin at Castlefield with its multi-storey warehouses, barge holes and hoists was to set the pattern for canal warehouses throughout the country. The Rochdale Canal was later to link the basin to trans-Pennine routes.

(Left) Potato Wharf Castlefield (IoE 456064 Martin Malies)
(Right) Giants Basin circular weir, Castlefield (IoE 456065 Mike Widdas)

Elements of considerable significance: Worsley Delph basin (1001956), Packet House (1162797), Dry Docks Worsley (1215143) Barton Aqueduct embankments (1761), Barton Swing Aqueduct (1893) (1356522), Castlefield Basin, wharfs (1246959) warehouses (1208653) hoist and weirs. Barfoot Aqueduct (1067872), Bridgewater House (1330334), Runcorn.

The remains of Runcorn locks.



The Old flight of locks was infilled c 1949 but the line is used as a footpath for much of its length. (copyright Neil Arlidge www.penninewaterways.co.uk)

Elements of some significance: Boathouse Worsley Green (1288295), Waterloo Bridge Runcorn; Water control weirs, waterpoints and floodgates.

(Left) Waterloo Bridge 1828 (IoE 56038 Peter Sargeant):
(Right) Victorian Waterpoint Case, Lymm (IoE 423756 Claire Howson)

Main References: BR/P-T/ McK/TT/RE

1970 Mather, F. A. *After the Canal Duke* Oxford University Press

2012 Michael Nevell & Terry Wyke *Bridgewater 250: The Archaeology of the World's First Industrial Canal* Centre for Applied Archaeology, University of Salford (Bringing together the product of 20 years of historical and archaeological investigation this is the most detailed examination of the inception, evolution and heritage of any single canal.)

2016 Victoria Owens *James Brindley and the Duke of Bridgewater* Amberley

Websites: Wikipedia; Bridgewatercanal.co.uk

Waterway:	**Bridgwater & Taunton Canal**	
Status:	Open for cruising	
Overall Heritage Value:	3 Med (BWB)	
Owner/operator:	CRT	
Line	Bridgewater to Taunton	14miles
Date of opening:	1827	
Statutory designations:	Scheduled Monument	1
	Grade II	11
	Total	12

Lower Maunsell Lock and Bridge (IoE 269436 Michael Perry)

Summary Description and History:

Built under an Act of 1824 and opened in 1827, the B&T met the River Parrett at Huntworth and in 1841 it was extended round the town of Bridgwater to new docks below the town bridge. Its principal cargoes were coal and iron from across the channel in South Wales, with agricultural goods filling the boats on their return journeys. The Bristol & Exeter Railway bought the canal in 1866 and constructed a branch to the docks. The adjacent River Tone had been navigable to Taunton in 1717, with 4 locks and 4 half locks built by the end of the century, but commercial traffic had ceased by 1929 and navigation rights extinguished in 1967. All trace of the locks had been removed in subsequent flood prevention measures by 1969.

Firepool Lock (Taunton) had a set of reverse-facing gates, to prevent the canal draining if the level of the River Tone dropped. There were four more locks on the main line, and a lock at the entrance to Huntworth Basin. One final lock connected the basin to the river, and again it had a set of reverse-facing gates, so that the basin could be drained at low tide, and the low level retained for maintenance if required. There were eleven brick bridges carrying roads and a dozen timber swing bridges as accommodation bridges.

By the turn of the 20th century, commercial carrying on this rural waterway had all but ceased and the canal found a new role as a water supply. The waterway is classed as a remainder waterway and the combined efforts of British Waterways, local enthusiasts, district councils and Somerset County Council achieved the restoration of the Bridgwater & Taunton which reopened in 1994. Now 14 miles of canal through six locks is navigable with the Maunsell Lock Canal Centre the focal point of the restored waterway and hub of the popular Somerset Space walk along the towpath.

Statement of Significance:

Bridgwater Dock is an historic and rare example of a southern canal dock and retains original fabric, basin formations, ancillary equipment and associated buildings. A system of paddle gearing – using metal ball weights at the top and metal cylinder weights at the bottom – is unique to the Bridgwater and Taunton Canal. The docks have recently attracted major residential developments.

The restoration of the canal involved rebuilding several of the swing bridges such as Fordgate.

Bridgwater Dock (IoE 373958 John H. Sparkes)

Fordgate Swing Bridge (Wikipedia

Elements of considerable significance: Bridgwater Dock and sandstone walled canal cutting

Elements of some significance: Firepool Lock, Maunsell Locks (1060154 , 1344671) and six bridges. The swing bridges that have been rebuilt such as Fordgate.

Main References: **BR/P-T/DB/ McK/TT/RE**

2007 Haskell, Tony *By Waterway to Taunton: The Bridgwater and Taunton Canal.*

Websites: Wikipedia

Waterway:	**Bude Canal**
Status:	Abandoned, short sections in water but mostly in-filled
Overall Heritage Value:	3 (perhaps 4)

Owner/operator:

Line: Bude to Vinworthy (N), Blagdon (E) and Druxton (S) 35 miles

Date of opening:	1823	
Closed	1891	
	1960 formally abandoned (and much of the line disposed of)	
Statutory designations:	Scheduled Monument	2
	Grade II	46

Summary Description and History:

Built 1819-1823 by James Green under an Act of 1819 to serve the hilly hinterland chiefly to bring lime-bearing sand for agricultural fertiliser, the Bude Canal system was one of the most unusual in Britain.

After a short 2-mile section of broad canal with two locks from the sea lock at Bude (1328520), the canal at Helebridge became a tub-boat canal employing six inclined planes.

Sea Lock Bude (Grade II* IoE 64771 Brian French)

Bridge over the Bude canal at Marhamchurch (IoE 64866 Hilary Phillips)

After Helebridge there were three inclined planes to the summit section; the whole of the central part of the system was at this level, 433 feet (132 m) above sea level. Hobbacott Incline (1005459) is a scheduled monument while the plane, wheel pit and bridge at Werrington is Grade II as is the incline plane keepers house at Hobbacott (1278566) and several of the warehouses lining the wharf at Bude.

The main line to Druxton Wharf, near Launceston negotiated three descending inclined planes as it followed the southerly course of the River Tamar.

The Inclined Planes

Name	Vertical interval	Length	System
Marhamchurch	120 ft	836 ft	Overshot waterwheel
Hobbacott	225 ft	935 ft	Descending bucket
Vealand	58 ft	500 ft	Overshot waterwheel
Merrifield	60 ft	360 ft	Overshot waterwheel
Tamerton	59 ft	360 ft	Overshot waterwheel
Bridgetown	51 ft	259 ft	Overshot waterwheel

(Left) Former incline keeper's house and toll house to the Hobbacott Down incline plane (IoE 64843 Barbara Hilton): (Right) Brumsdon Aqueduct (1821) over Tamar (IoE 64841 Brian French)

There were also several small aqueducts over small streams such as that over the Tala Water, several fine culverts taking streams under embankments and a substantial one arched aqueduct over the Tamar at Burmsdon.

The arrival of the railway spelt the ultimate doom of the canal: manufactured fertilisers had become commonplace and cheap, and they could be brought in by railway, so that the demand for the local sand was diminished considerably. Finally abandonment of the tub boat operation took place on 14 November 1891 with the Launceston main line and the Holsworthy branch being abandoned, but the Feeder arm continuing to be kept open because of the water rights. After protracted negotiations the remainder of the canal was bought by Stratton and Bude Urban District Council, on 1 January 1902, and this enabled them to supply domestic water in due course to the villages in the district from the canal's Tamar reservoir.

The Bude Canal Trust, formed in 1996, seeks to preserve some of the route of the canal for public enjoyment such as the 5 mile section south from Tamar Lake to Burmsdon Bridge while the broad canal section leading to the sea lock is also being restored.

Statement of Significance:

The Bude Canal is of considerable heritage significance and although there are only vestigial remains of most of the buildings and waterwheel pits of the inclines some such as that at Merrifield survived to be measured and recorded in 1972 and the alignments are still visible in the landscape while in 1972 that the Werrington incline crossed the public highway by a stone arched bridge. As evidence of the most extensive use of canal inclined planes in the country these remains merit fuller investigation and consideration for protection. In 1972 at least, some of the many small accommodation bridges retained their cast iron girders but the parapets of Burmsdon aqueduct had been lowered.

The Wharf at Bude is lined with several warehouses and stores dating to the operation of the canal.

Warehouse and Store on Bude Wharf (IoE 64773 Hilary Phillips)

Elements of considerable significance: remains of the six inclines including Hobbacott (1005459) , Bursdon Aqueduct (1164389), Bude sea lock and basin, locks on broad canal section (1005454

Elements of some significance: minor bridges and culvert, Tamar Lake leat, wharf buildings at Druxton, Blagdonmoor .

Main References: Harris, H and Ellis, M *The Bude Canal* D & C (1972)

Websites: Wikipedia Bude Canal Trust

Waterway: **Caistor Canal**

Status:	Abandoned
Overall Heritage Value:	2
Owner/operator:	EA (drainage channel)
Line:	River Ancholme to Moortown 4 miles
Date of opening:	1800
	Disused by 1877 abandoned 1936
Statutory designations:	Grade II 6

Summary Description and History:

The Caistor Canal was built under an Act of Parliament of 1793 following the survey of the engineer William Jessop in 1792It ran from the River Ancholme Navigation eastward towards the town of Caistor, but only about half was constructed and it reached to the village of Moortown, a distance of about 4.5 miles, three miles short of its intended terminus at Caistor. The canal was a broad canal, built to take boats of similar size to the Sheffield canal.

The canal appears to have become disused in the 1850s, but some traffic may have continued to South Kelsey, the village at its midpoint until some years later. It was disused by 1877 but was not formally abandoned until the passing of the Caistor Canal Act Revocation Order made in 1936 under the Land Drainage Act. Parts of the channel were dredged in 2010 to improve flood defences and around 1 mile of the bed, between the locks either side of South Kelsey village, was affected by the work.

The channel near South Kelsey village.

Lock 5 Caistor Canal (Wikipedia Bob1960evens)

Statement of Significance:

19th-century OS maps show six locks. The highest of these, near the basin at Moortown, had totally disappeared by the 1960's together with any other remains of a wharf, basin, or buildings there might once have been at the village end. However the other five locks survive and are complete except for gates and paddle gear. A former bridge at South Kelsey has been replaced but this foot or horse bridge carrying the tow path of the Ancholme over the entrance to the canal survives. The span is of C20 steel and not of special architectural interest but it rests on abutments of stone which are similar to those of the locks. This bridge forms a group with Lock No. 1. The whole series of these locks and bridge is a significant survival of C18 canal

engineering and displays an impressive quality of construction and their remains of some interest as they were disused before being much altered.

Elements of considerable significance: none

Elements of some significance: listed locks eg Lock 5 (1396408) and the Ancholme towpath bridge (1396409)

Main References: P-T/RR/RE

Websites: Wikipedia

Waterway:	**Calder & Hebble Navigation**
Status:	CRT waterway
Overall Heritage Value:	5 High (BWB)
Owner/operator:	CRT
Line:	Sowerby Bridge to Wakefield 21.5 miles (Halifax branch 2 miles – closed 1942)
Date of opening:	1758 Act to improve rivers - opening 1770 to Sowerby bridge
Statutory designations:	Scheduled Monument 1
	Grade II* 3
	Grade II 64

Summary Description and History:

Following a survey made by John Smeaton in late 1757 a scheme was produced for an improved navigation from Wakefield to Halifax which involved dredging shoals, making 5.7 miles (9.2 km) of cuts, the building of 26 locks, to overcome the rise of 178 feet (54 m) between Wakefield and the Halifax Brook, and the construction of a reservoir at Salterhebble bridge. An Act was obtained on 9 June 1758, for this route extended to Sowerby Bridge and construction started in November 1759, with Smeaton acting as engineer. He was briefly replaced by James Brindley in 1765-6 but returned in 1768 to complete the work after disastrous floods earlier that year. Other eminent engineers were also involved with reports and inspections The Calder & Hebble opened throughout as river navigation in 1770, was constantly improved and canalised over the next 50 years with several resident engineers involved – Thomas Bradley (1792-), Robert Carr (1769-74), Luke Holt (1769-74) – until it was largely artificial with 26 locks, four flood locks and four flood gates.

There are fine remains of these various historic works. Alongside Brookfoot Lock is the disused Tag Cut Flood Lock which led back out into the river. This was the course of the navigation during an earlier phase before the Brighouse Cut was extended up the valley.

Tag Cut Flood Lock (www.penninewaterways.co.uk):

Brighouse locks (www.penninewaterways.co.uk)

The navigation leaves the river for the last time when it branches right into the two Brighouse locks. From here to Sowerby Bridge the navigation is along a man-made channel.

Halifax was the destination of the original 1757 scheme but Halifax was only reached by a short branch which had a further 14 locks and opened in 1828 to a basin behind the railway station. It was abandoned in 1942 and now, the branch only runs a third of a mile to The Quays at Exley.

(Left) The Halifax Branch Canal, Exley (www.penninewaterways.co.uk): (Right) Aqueduct over the Halifax brook. (IoE 447631 Tony Dallimore)

The Navigation benefitted greatly from the opening of the Rochdale canal in 1804 and the basin at Sowerby Bridge became the point where cargoes were transferred.

(Left) Sowerby Bridge (Wikipedia Geni): (Right) Sowerby Bridge Canal Basin, with the restored Salt Warehouse on the left.(www.penninewaterways.co.uk)

Statement of Significance:

The Calder & Habble is a very historic waterway with high rate of survival of (mainly) sandstone engineering structures and buildings and there are good groups at various locations (eg Salterhebble, Sowerby Bridge). The historic handspike-operated locks are unique and of exceptional interest as they typify a once common method of lock working.

High rate of survival of cottages and houses built to a discernible pattern, with pitched overhanging roofs and regular fenestration. Examples at Elland, Salterhebble, Brookfoot etc

The top lock at Salterhebble and Elland Lock, with the former lock keeper's cottages alongside. (www.penninewaterways.co.uk)

The Navigation warehouse (1242353) at Wakefield is Grade II* as is the Wet Dock and warehouse at Sowerby Bridge, while the Stone warehouse (1119660) at Wakefield and several at Sowerby Bridge are Grade II.

Elements of considerable significance: Excellent series of stone locks, bridges, cottages and warehouses and historic basins with associated buildings at Sowerby Bridge and Wakefield most of which are designated.

(Left) Wakefield Warehouses (www.penninewaterways.co.uk)
(Right) Thornhill Double lock (www.penninewaterways.co.uk)

Elements of some significance: mileposts such as that Inscribed on face "From FALL ING 19 Miles" near Elland (1247277).

Milepost at SE 0995 2178, Elland
(IoE 456624 Nigel Wood)

Main References: **BR/P-T/db/ McK/RE**

2002 Mike Taylor *The Calder & Hebble Navigation* Tempus

Websites: CRT Wikipedia The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway:	**Caldon Canal** (Incl Leek and Uttoxeter Branches)	
Status:	?	
Overall Heritage Value:	4 High (BWB)	
Owner/operator	CRT	
Line:		
Trent & Mersey Canal to Froghall		17 miles
Leek Branch		3 miles (partially closed)
Uttoxeter Branch		13 miles (closed)
Date of opening:	1779	
Statutory designations:	Grade II	40

Summary Description and History:

The Caldon Canal, constructed under an Act obtained in 1776, by its parent the Trent & Mersey Canal to carry Peak District limestone, from the quarries at Cauldon Low, down to the Potteries and the industrial Midlands. Seventeen miles long it was completed in December 1778 with 16 locks, eight rising from Etruria to the start of the summit at Stockton, and eight falling from the end of the summit to Froghall. 1.5 miles of the canal followed the bed of the river Churnet near Consall. A second Act of Parliament was obtained in 1783 to authorise a tramway, and to extend the canal by 530 yards (480 m), which included the Froghall tunnel. The tramway was 3.1 miles (5.0 km) long, and was funded out of revenue, as the Act did not authorise the raising of additional capital.

East portal Froghall Tunnel (1783) (Wikipedia Akke): (Right) Leek Tunnel(1800) (Wikipedia Rogerfletcher)

A short branch was built 18 years later connecting the Caldon with the town of Leek The Leek Branch which includes the Leek Tunnel is 3 miles long and opened in 1800/01. It meets the main line at Hazelhurst Junction, after crossing the main line on Hazelhurst Aqueduct.

Another branch extended the navigation to Uttoxeter but this lasted only until 1845 when it was closed and replaced with a railway line. The 13 mile long branch which is often referred to as the Uttoxeter Canal had 17 locks and opened in 1811.

Freight traffic deserted the Caldon shortly after the construction of a parallel railway line and the canal became virtually unnavigable by the 1960s. Enthusiasts were justifiably vocal in clamouring for its restoration and it was brought back into use in 1974.

(Left) The restored basin above Lock 1 on the Uttoxeter Canal at Froghall (Wikipedia David Stowell)
(Centre) Froghall Wharf Warehouse (1038041) and Tramway Terminus (1189068) (IoE 274699 and 274698 Terence Moors)

Limekilns, Froghall Wharf
(IoE 274775 John Lewis)

The Uttoxeter Branch still lies derelict, but the first lock and basin at Froghall have been restored and re-opened in 2005. Similarly, the final mile of the Leek Branch is no longer navigable, but plans are now being made to restore navigation across a surviving aqueduct further towards the town.

Statement of Significance:

The British waterways assessment notes a good collection of structures, especially stone formations on Leek Branch. Excellent, high value groups of canal/industrial buildings at Froghall, Cheddleton and Hazelhurst, where Leek Branch crosses main line on an aqueduct of 1841. The junction between the canals has been altered on several occasions. Locks, bridges and cottage complete the scene.

(Left) Hazlehurst aqueduct (1841) Leek Branch (IoE 274529 Robin Harper):
(Right) 1779 Lock altered mid-19th century Cheddleton (IoE 274532 Robin Harper)

Elements of considerable significance: Fine group at Hazelhurst Junction: set-piece canalscape with stone, iron and brick bridges, locks, cottage and single arched aqueduct. Good groups at Froghall and Cheddleton

Elements of some significance: Leek Tunnel (1268635) Rudyard Resevoir

Main References: BR/P-T/RR

Websites: Wikipedia Caldon & Uttoxeter Canals Trust

Waterway: **River Cam** and associated Lodes

Status: Boating navigation
Overall Heritage Value: 2
Owner/operator: EA and river commissioners
Line:

Main river	14.5 miles
Bottisham	2.5 miles
Swaffham Bulbeck	3.5 miles
Reach and Wicken Lode	4.5 miles
Burwell Lode	1 mile
Soham Lode	7 miles

Date of opening: 1702 Conservators appointed to manage ancient waterways

Statutory designations:	Ancient Monument	1 (Reach Lode)
	Grade II	3

Summary Description and History:

The River Cam and some of and its associated lodes have been used for navigation from ancient times but it was from the beginning of the 18th century that its management was regularised and the navigation improved by converting sluices and some staunches into locks. Commercial traffic declined by the early 20th century but leisure boating thrives on the main river.

(Left) The lock at the junction between Swaffham Bulbeck Lode and the River Cam (Wikipedia David Gruar): (Right) Barway Bridge crossing Soham Lode on a section that is still deep enough to navigate (Wikipedia James Yardley)

Statement of Significance:

There is comparatively little of heritage interest on the river itself which, of course is lined by heritage features. One such, associated directly with the river, is a house built by the Conservators at Clayhithe (1127370), which cost £880, and included a large room for meetings and banquets. Dated 1842, it also functioned as a tollhouse.

The Conservators' House, Clayhithe
(Wikipedia Cruccone)

The lodes retain more of historic interest including the channel of Reach Lode which is Anglo-Saxon while on the Bottisham Lode in 1875, the Drainage Commissioners spent £294 on a flash lock, which had a flagstone floor, a chamber constructed of white bricks, a timber guillotine gate, and a mechanism for raising the gate made from cast-iron, supported by a timber frame. The chamber was 11.75 feet (3.58 m) wide, and the mechanism included a winding drum with winding wheel, and cogwheels with ratchets. The timber frame was demolished in 1968 but the chamber still survives.(Lewis et al 169)

Pumping station and flood gates
at the head of Bottisham Lode
(Wikipedia R J Noble)

'Cockup Bridge' on the Burwell Lode
(Wikipedia Andy Mabbett)

Elements of considerable significance: Reach Lode, remains of Bottisham flash Lock, The Conservators House (1127370).

Elements of some significance: brick bridges such as Barway bridge over Soham Lode , The Merchants House (1331453) and Warehouse (1127047) Swaffham Bulbeck.

Main References: **BR/P-T/SF**

Websites Wikipedia

Waterway: **Carlisle Canal**

Status:	Abandoned line partially used for railway	
Overall Heritage Value:	2	
Owner/operator:	various	
Line	Carlisle to Port Carlisle	11 miles
Date of opening:	1823	
Closed:	1853	
Statutory designations:	Grade II	5

An oil on canvas painting of the Canal basin by William Brown c1823 displayed in Tullie House Museum Carlisle

Summary Description and History:

The Carlisle Canal was a 11 mile long ship canal from near Bowness on the Solway to the centre of Carlisle. William Chapmen was the consulting engineer and the canal was built under an Act of 1819. It had a sea lock and small dock at the newly founded Port Carlisle and seven other locks which were 60 feet along and the canal 8.5 feet deep was able to accommodate sea going ships from 80 to 100 tons. The canal fell a height from Carlisle to the Solway by 70.5 feet and ships were pulled along the canal by horses. It operated successfully until railway competition caused it to close in 1853 and part of its line was converted into a railway branch in 1855.

Easton Marsh Aqueduct
(IoE: 71905 John Wright)

Statement of Significance:

Of some interest as a ship canal but there are only remains of real significance at Port Carlisle itself.

Sea Lock, Port Carlisle and Steam Packet Inn (IoE 71919 and 71917 John Wright)

Elements of considerable significance: remains of sea lock (1137097), dock and cottages at Port Carlisle Hesket House (formerly Steam Packet Inn) (1312489)

Elements of some significance: Reservoir sluices at Ratlingate , canal inscription on bridge at Knockupworth (listed), the Bridge and Lock House at Beaumont, waterwheel pit of pumping installation from River Eden, aqueducts (1144626, 1335635)

Main References: P-T/RR

1997 David Ramshaw *The Carlisle Navigation Canal 1821-1853*

Websites: Wikipedia

Waterway: **Chard Canal**

Status: Abandoned and mostly in-filled
Overall Heritage Value: 2
Owner/operator: various
Line:
Chard to Bridgewater & Taunton Canal at Creech St Michael 13.5 miles
Date of opening: 1842
Closed: 1867
Statutory designations: Grade II 1

Summary Description and History:

One of the last canals to be built in England having been authorised an Act in 1834 this tub-boat canal overcame a fall of 231 feet between Chard and Taunton by means of four inclined planes, three tunnels, two aqueducts one lock and a stop lock. The inclines at Thornfalcon (28ft rise), Wrantage (27.5ft rise) both of which were open in 1841,and that at Ilminster (82.5 ft rise) which was waterwheel driven and opened in 1842 had the tub-boats floating in caissons while that at Chard Common (86 ft rise) was powered by a turbine and also opened in 1842.

Within 25 years the canal succumbed to railway competition and was brought by the Bristol & Exeter in 1867 and closed in 1868. The Chard reservoir, which was the main supply for the canal, was sold to Lord Poulett. In 1990, South Somerset District Council bought it, and it is now a designated nature reserve.

Ilminster twin incline used with a continuous cable, 82.5' rise. (www.hows.org)

Canal Bridge, Thornfalcon
(IoE 477263 Michael Perry)

Statement of Significance:

In 1972 the canal survived patchily as some short watered sections, portals to two of the three tunnels, and discernible inclines. A bridge on the Thornfalcon to Creech road is listed, and the three-arched aqueduct which carried the canal over the River Tone is largely intact, although it no longer has its parapets.

Elements of considerable significance: The incline earthworks

Elements of some significance: Listed bridge at Thornfalcon (1342043), reservoir at Chard, tunnel portals of Crimson Hill and Lillesdon Tunnels, Tone aqueduct.

River Tone Aqueduct in1972 (Geograph Robin Webster)

Lillesdon Tunnel (Geograph Noel Jenkins)

Main References: P-T, RR

Websites Wikipedia

Waterway: **Chelmer & Blackwater Navigation**

Status: cruising navigation
Overall Heritage Value: 3
Owner/operator: Essex Waterways Ltd (IWA)
Line:
Chelmsford to Heybridge on Blackwater estuary 14 miles
Date of opening: 1797
Statutory designations: Grade II 21

Summary Description and History:

The 13.8 mile long navigation, constructed under the supervision of John Rennie, falls 75 ft by means of 12 locks from Springfield basin in Chelmsford to the sea lock at Heybridge basin but was built with a depth of only 2 feet of water – the lowest of any English commercial waterway. The locks were constructed to take barges which were 60 by 16 feet and each could carry around 25 tons.

(Left) Papermill Lock, Little Baddow(Wikipedia Danesman1):
(Right) Ulting Lock (1111012) (IoE 119074 Brian Martin)

Though affected by railway competition, commercial trade continued to 1972 and the waterway was not nationalised in 1948. Pleasure craft were prohibited until 1972 but encouraged thereafter. The Navigation Company went into administration in 2003 and although it is still owned by the Company of Proprietors it is managed by Essex Waterways Ltd a subsidiary of the Inland Waterways Association under an arrangement brokered in 2005.

Statement of Significance:

Though John Rennie was nominally in charge the improvements to the waterway were constructed by his assistant Richard Coates. Much of the fabric of the locks is reputedly original hence of some significance and 21 sites are listed Grade II including locks, a lock cottage (1166298), a weir (1147227) and several brick bridges.

Lock cottage, Ulting (IoE 119075 Brian Martin)

Weir at Rushes Lock (IoE 119170 Brian Martin)

Elements of considerable significance: none

Elements of some significance: the original locks weirs and bridges.

Main References: **BR/P-T**

Websites Wikipedia Inland Waterways Association

Waterway:	**Chesterfield Canal**	
Status:	CRT waterway (part Abandoned and being restored)	
Overall Heritage Value:	4	
Owner/operator:	CRT and Derbyshire CC	
Line:		
Chesterfield to the Trent		46 miles
Date of opening:	1777	
Statutory designations:	Grade II*	1
	Grade II	31

Summary Description and History:

Surveyed by James Brindley in 1769 and built under an Act of 1771, the canal was constructed after Brindley's death in 1772 by his assistant John Varley with Brindley's brother-in-law Hugh Henshall as chief engineer. The line had two summit levels, 65 locks, the 2850 yard Norwood Tunnel, the 154 yard Drakeshole Tunnel, four reservoirs and three small branches and an isolated underground level at Hollinwood pit navigated by 20ft tub-boats.

Drakeshole Tunnel (Wikipedia Tina Cordon)

The canal was prosperous and amalgamated with the Manchester, Sheffield & Lincolnshire Railway in 1847 which it is often claimed (though now disputed) caused a slight lengthening of Norwood Tunnel from 2850 yards to the the current 2884 yards.. Trade declined towards the end of the 19th century and in 1908 subsidence caused the Norwood Tunnel to be closed isolating the upper section of canal. Traffic retreated towards the Trent in the mid- 20th century and ceased c.1955. In 1968 the section below Worksop was classified as a cruiseway and the rest as a remainder waterway.

Isolated sections of the remainder waterway have been restored over the last thirty years. The last five miles (8 km) of the canal, from Chesterfield to Staveley, were in good condition, and restoration began in 1987, with Tapton lock being re-opened in 1990.

(Left) Straddle Warehouse, Worksop. (IoE 241244 Derek E. Godson): (Right) Tapton Lock Chesterfield (IoE 449792 George Wolfe)

Derbyshire County Council acquired the section of canal between Chesterfield and Staveley and secured several large grants to begin major restoration works. Over a ten-year period, four more locks and three new bridges were built, with the five-mile section from Chesterfield being reopened to navigation in 2002, though still isolated from other waterways. The County Council are currently restoring a further section of canal at Staveley and building a new canal marina, the Staveley Town Basin which opened in 2012 and the Staveley Town Lock in 2016. In 2003, the Worksop to Norwood Tunnel stretch of the canal was reopened, with 30 restored locks, one new lock and three new bridges.

Brindley's closely-spaced locks, though formerly much decayed, have been listed and the restoration of Thorpe and Turnerwood Locks has been preceded by thorough archaeological investigation before their £4.3 million restoration, which was partly funded by the HLF and English Partnerships.

Statement of Significance:

Historically one of the earliest Pioneering phase canals, with innovative staircase formations at Norwood, Thorpe Salvin (1182850) and Turnerwood (1192731)– some of the earliest of their kind in the UK. West Stockwith – East Retford section is broad and mainly brick built; remainder is narrow with increased use of stone especially in Rotherham section.

The restoration efforts have been of heroic proportions involving partnerships between volunteers and local authorities and themselves are of some significance in the history of waterway restoration. The Norwood Tunnel which opened in May 1775 shares the distinction with Brindley's other great tunnel (the Harecastle Tunnel on the Trent & Mersey) of being the earliest summit tunnels on the British canal system and the first long tunnels on any navigable waterway in the world. Though closed is still inspected every 10 years – the most recent inspection in 2016 showed that the brickwork apart from the collapsed section was in surprisingly good condition.

Restored Turnerwood Locks, bridge and overflow (1314642) (IoE 335811 335809 Paul Eggleston)

Elements of considerable significance: Staircase formations on Rotherham section Cuckoo Wharf and Straddle warehouse, Worksop (1045059). Norwood Tunnel.

Elements of some significance: Ryton Aqueduct c 1777 (1286426) partly reconstructed 1946.Lady's Bridge (1156858), Drakeshole Tunnel

Ryton Aqueduct (IoE 335835 Paul Eggleston)

Lady's Bridge (IoE 241196 Brian Harris)

Main References: **P-T/BR/RR**

2001 Richardson, C. 'Brindley's Norwood tunnel (1771-1775), twin of Harecastle' *Trans Newcomen Soc* vol 72 (2000-1) pp. 163-78

2004 Richardson, C. 'The Chesterfield Canal: Thorpe and Turnerwood Locks' *RCHS Jnl* vol 34 No 187 pp 454-458

2004 Richardson, C. 'James Brindley, Canal Pioneer' *Waterways World*

Geraint Coles Archaeological reports (Unpublished)

Websites Wikipedia Chesterfield Canal Society

Waterway: **Coombe Hill Canal**

Status:	Abandoned	
Overall Heritage Value:	0	
Owner/operator	Gloucestershire Wildlife Trust	
Line: Coombe Hill to Severn		3 miles
Date of opening:	1796	Disused 1876
Statutory designations:	none	

Summary Description and History:

The canal was authorised in 1792 and was probably open in 1796. Only three miles long with an entrance lock off the River Severn, the cost of construction was about £5000 and the completed canal could take barges of 60-70 tons.

The frozen canal from the terminal wharf
(Wikipedia Jonathan Billinger)

In 1810 the canal was leased to a group of three men for £400 per annum and then in 1822 to a number of committee men from the Worcester and Birmingham Canal. In 1829 they renewed their lease for another 21 years at £500 per annum and in 1844 offered to buy the canal for £8,750, but they later withdrew the offer. In 1849 the lease was taken up by the Staffordshire and Worcestershire Canal, which was unable to make the canal pay, and when it surrendered the lease in 1867 cargo fell to 1,800 tons per annum. The canal company tried to run the canal itself for a few years before selling it for £520 in 1871. The canal was resold for £1000 in 1873 but in 1876 it was abandoned due to the new owners being unable to afford to repair flood damage to the lock that connected it to the River Severn.

The Gloucestershire Wildlife Trust purchased the Coombe Hill Canal nature reserve in 1985 and the area is managed by the Trust.

Statement of Significance: Nothing of historic interest – of managed wetland importance.

Elements of considerable significance: none

Elements of some significance: none

Main References: P-T/RR/RE

Websites: Wikipedia

Waterway: **Coventry Canal**

Status: CRT waterway

Overall Heritage Value: 4 M (BWB)
Owner/operator: CRT
Line:
Coventry to Fradley Junction 38 miles
Date of opening: 1789
Statutory designations: Grade II 32

Summary Description and History:

The construction of the Coventry Canal was convoluted and involved several canal companies. The original Act was passed in 1768 and work began under James Brindley and the basin in Coventry opened the following year but by 1771 construction stopped at Atherstone still 21 miles from Fradley and Brindley was replaced by Thomas Yeoman.

Over the next 18 years work on the missing section was undertaken by neighbouring canals and various engineers including Thomas Dadford Elder, Robert Whitworth and Thomas Sheasby, finally being completed by 1789.

As part of the London to Birmingham route the Coventry Canal was prosperous and paid a dividend right up to 1947 when it was nationalised.

(Left) Coventry Basin with tribute to James Brindley (Wikipedia Paul Coles): (Right) Fradley Junction (CRT)

Statement of Significance:

Though an early pioneering canal built to supply coal to Coventry and via Oxford Canal to London, its convoluted construction history, including agreement that Birmingham & Fazeley Co and Trent & Mersey Co would build different sections of Coventry Canal has led to differences in form of bridges and other equipment.

There has been much rebuilding of C18 structures, but historically important sites and good groups of buildings survive, including cottages, workshops and warehouses Fradley Junction, Hartshill Yard (1034747), Coventry Basin Canal House (1342940) and Warehouse (1076584) and the pumping house at Hawkesbury Junction (1365077).

Hawkesbury Junction with the Oxford Canal. The Coventry Canal and Hawkesbury Engine House to left (Wikipedia Oosoon)

At Atherstone Lock No 5 there is a lock cottage and lobby (1262618) which both have adjoining mid C19 walls with basket-arched doorways giving into small yards, that to left of cottage with attached wash-house. A rare example of a Canal Co. cottage with surviving yards and outbuildings.

(Left) Hartshill Yard maintenance depot (CRT): (Right) Atherstone Lock No 5 and cottage (IoE 434562 Peter Garratt)

Elements of considerable significance: Hartshill Yard, Fradley Junction, Hawksbury Junction, Coventry Basin

Elements of some significance: Cottages at various locks eg Atherstone

Main References: **BR/P-T**

Websites CRT Wikipedia

Waterway: **Cromford Canal**

Status:	Part Disused and sections navigable	
Overall Heritage Value:	4	
Owner/operator:	Derbyshire County Council	
Line:	Cromford to Langley Mill	14.5 miles
Date of opening:	1794	Disused by 1943
Statutory designations:	Scheduled Monument	5
	Grade II	18

Summary Description and History:

Engineered by William Jessop and Benjamin Outram under an Act of 1789 this short canal had four tunnels and 14 locks and reservoirs at Butterley and Codnor Park.

(Left) Cromford Basin (Wikipedia Craig Carter): (Right) Derwent Aqueduct at Leawood

The top section begins at a warehouse at Cromford Mills and this lockless section follows the 300ft contour to the 1849 Leawood pumping Station (where navigation now ends), crosses the Derwent by the 80 ft span Leawood Aqueduct of 1792 where a short arm led to Nightingale's mills.

Cromford & High Peak Railway wharf , terminus workshops and Leawood Pumping Station (Wikipedia, Steve Brown and Chevin)

It then crosses the later railway in an iron trough, enters the first of the three short tunnels – Gregory Tunnel and then Hag Tunnel, crosses the River Amber by an aqueduct and through Buckland Hollow Tunnel before approaching the 2,900 yard Butterley Tunnel (1404832).

Buckland Hollow Tunnel
(IoE 79112 Roy Millett)

Cromford Canal extended its network by the construction of tramroads such as the Butterley Gangway engineered by Outram in 1793 to connect to quarries near Crich and the Fritchley Tunnel on that tramroad has claims to be one of the earliest railway tunnels in the country.

A century later the Butterley Tunnel which had been extended when the railway was built above it was to be the downfall of this prosperous canal. Subsidence closed it to close in 1889 for four years then permanently in 1900 cutting of the top end of the canal. Traffic continued until 1938 on the upper section and until 1943 on the Pinxton branch and the lower end. The canal was abandoned in 1944 and some of the locks in-filled while the upper end was acquired by the Derbyshire County Council.

Statement of Significance:

Originally a prosperous and historic canal especially when a wharf, itself of heritage interest, was established at the end of the Cromford & High Peak Railway in 1831(1007025). The closure of Butterley Tunnel where there was a rare transhipment shaft from the Butterley Ironworks above was a disaster from which it never recovered. Now a restored section from Cromford Wharf where there are warehouses of 1786 and 1824 (1244629 and 1244631), a Counting house (1244630) and a pair of semidetached wharf houses (1244633) has an excursion boat and for a few years a horse drawn excursion boat also operated. The line of the Butterley Gangway has recently been re-established and the Fritchley Tunnel (1422984) excavated and designated by scheduling.

Elements of considerable significance: Lea Wood pumping station is outstanding and forms a group with Lea Wood Aqueduct over the Derwent (1007040). Cromford & High Peak Railway wharf. Fritchley Tunnel, Butterley Gangway.

Elements of some significance: Canal head wharf , warehouses and wharf house at Cromford. Gregory Tunnel, bridges on the Pinxton Arm, Bullbridge Aqueduct? Tramway site at Amber Wharf? Butterley Tunnel transhipment shaft.

Main References: BR/P-T/RR/RE

Websites: Wikipedia

Waterway: **Croydon Canal**

Status: **Abandoned** (converted to railway – short sections watered)
Overall Heritage Value: 0
Owner/operator: various
Line:
Croydon to Grand Surrey canal New Cross 9 miles
Date of opening: 1809
Closed: 1836
Statutory designations: none

Summary Description and History:

Authorised under an Act of 1801 the canal opened in 1809 as a barge canal with 28 locks arranged in two flights with reservoirs at Sydenham and South Norwood. Its main cargo was timber but it was linked to the Croydon Merstham & Godstone Railway enabling it to also transport stone and lime from the Merstham quarries. It was never a commercial success and closed in 1836 being the first canal to be abandoned by an Act. Much of its line was used by the London & Croydon Railway while sections were retained for pleasure use as in Betts Park which was used as a boating lake and at Dacres Wood where a pond is a nature reserve.

Section of canal in Betts Park, Anerley (Wikipedia Nigel Chadwick)

Statement of Significance:

Little of significance survives

Elements of considerable significance: none

Elements of some significance: pond at Dacres Wood Nature Reserve, watered section in Betts Park

Main References: P-T/RR

Websites Wikipedia

Waterway: **Dearne & Dove Canal**

Status:	Abandoned – derelict and mostly in-filled	
Overall Heritage Value:	2	
Owner/operator:	various	
Line:		
	Sheffield and South Yorkshire Navigation, at Swinton, to Barnsley	10 miles
	Elsecar Branch	2 miles
	Worsborough Branch	2 miles
Date of opening:	1798 and 1804	
Closed progressively:	Worsborough Branch	1906
	Elsecar Branch	1928
	main line	1934,1942 and 1952
Statutory designations:	Grade II	3

Summary Description and History:

The Dearne and Dove Canal ran from the Sheffield and South Yorkshire Navigation, at Swinton, to Barnsley. It was 10 miles long plus two branches. It had 19 broad locks including the stop lock at Barnsley, plus 6 on the Elsecar Branch. The supply of water for the canal came from two reservoirs, at the heads of the two branches. There was a 472 yards long tunnel at Adwick, north of Swinton. In 1798, the canal was open from Swinton to the Elsecar Branch, but did not reach its junction with the Barnsley Canal until 1804.

Locks 3 and 4 (www.penninewaterways.co.uk)

The Dearne and Dove Canal, running right across an area that was being heavily mined for coal, suffered considerably from subsidence and its condition gradually deteriorated. In 1906, the Worsborough Branch was closed, due to subsidence, followed in 1928 by the Elsecar branch. The last boat passed right along the canal in 1934 and the canal only remained open from Barnsley to Oaks Colliery (Barnsley Main) and from Swinton to Manvers Colliery. The Barnsley end closed in 1942 and the section to Manvers in 1952. Only a half mile of canal remained open, serving the

Canning Town glassworks at Swinton. This section is still in water and the first two locks now form part of Waddington's boatyard.

Statement of Significance:

There is little of great significance surviving on the main canal itself of which over 65% has been in-filled but at the head of the Worsborough Branch the reservoir is of interest as an early dam. The Elsecar Branch is almost extant and restoration has begun on its five locks. Its association with the Elsecar Engine, Elsecar Engineering Works and Worsborough Mill raises its overall significance to 2. The Barnsley, Dearne & Dove Canals Trust is seeking to re-open the canal with new sections and the Elsecar Top Lock has been restored.

Smithy Bridge Elsecar Branch (IoE 333679 John Kril)

Elements of considerable significance: none

Elements of some significance: Worsborough Reservoir Dam and remains of Canal basin (1151022) locks and bridges Wet Moor Bridge (1286501) Smithy Bridge (1151175)

(Left) Elsecar Basin and culvert (IoE 333683 Jean Bickerstaffe): (Right) Worsbrough Reservoir Dam (Worsbrough Country Park)

Main References: BR/P-T/RR/RE

2004 Roger Glister *The forgotten Canals of Yorkshire: Wakefield to Swinton* Wharncliffe

Websites Wikipedia The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway: **Derby Canal**

Status: Abandoned (some restoration)
Overall Heritage Value: 1
Owner/operator: various
Line:
Derby to Swarkestone, Little Eaton and Sandiacre totalling 17.5 miles
Date of opening: 1796
Closed: Little Eaton Branch 1935, remainder 1964
Statutory designations: Grade II 2

Summary Description and History:

The authorisation of the Derby Canal and its branches had a difficult passage due to opposition from rival waterways but received assent in 1793. It linked Derby to the Trent & Mersey Canal and on to the River Trent near Swarkestone to the south and this involved crossing a mill race by means of the Holmes Aqueduct, a 44-foot-long (13 m) single-span cast iron structure that Outram devised. Completed in 1796, was the first of its kind preceding Telford's much longer London-on-Tern Aqueduct by a few weeks.

(Left) The Long Bridge – towpath crossing River Derwent (Derby Telegraph)
(Right) Clock House (1329871) Junction of canal with Little Eaton Gangway (IoE 352264 P. J. Nicholson)

The line to Sandiacre completed in 1795 was across the River Derwent, past the Little Eaton Branch, which connected with the Little Eaton Gangway an early plate railway, and on to meet the Erewash Canal.

The canal was prosperous for a number of years but suffered from railway competition by the 1840s but attempts to sell it to railways failed and traffic declined. The canal was largely disused by 1927 and closed in 1964 though the canal company itself, which wasn't nationalised, was not wound up until 1974. Post-war attempts by the IWA and Tom Rolt to thwart closure failed and despite national publicity and protest any restoration was to be delayed for a further fifty years when in the 21st century ambitious proposals have emerged and some elements realised with HLF funding.

Statement of Significance:

Despite the early protests against its closure and originally having two notable features – the Holmes Aqueduct and the Little Eaton Gangway, the Derby Canal today has fairly low heritage significance as so much of it has disappeared.

Elements of considerable significance: Clock House at Little Eaton (1329210)

Elements of some significance: several unused locks and bridges, wharf building at Little Eaton.

(Left) The Shacklecross Lock (Borrowash Bottom Lock) undergoing restoration in 2006 (Wikipedia Marin Cordon); (Right) Canal Bridge (1204353), Borrowash (IoE 82247 P. J. Nicholson)

Main References: BR/P-T/RR

2003 Garner, Edward. *The Seven Canals of Derbyshire*

Websites: Wikipedia

Waterway: **Derwent Navigation** (Yorks.)

Status: SSSI entire length – lower end navigable
Overall Heritage Value: 2
Owner/operator: EA, Riparian landowners and Yorkshire Wildlife Trust

Line:

Malton to River Ouse at Barmby-on-the-Marsh 38 miles
lower 24 miles navigable up to Sutton Lock

Date of opening: 1724
Statutory designations: Grade II 1

Summary Description and History:

The river was improved for navigation by several early Acts and by different owners and by 1724 was navigable up to Malton with five locks, the lowest being Sutton Lock 15 miles from the River Ouse. Many changes of ownership and lessees resulted in railways managing and running down commerce until traffic ceased c.1913.

Elvington Lock 2015 Upper and lower gates (Keith Falconer)

The Yorkshire Ouse Catchment Board assumed control in 1935 and Sutton Lock was rebuilt and some light traffic continued until 1960. Divided ownership of the lock has caused it to be closed for some years preventing through navigation. The Right of Navigation has been fought in the courts for many years and although boats can reach Stamford Bridge the riparian owners retain the rights.

Barmby Barrage (Wikipedia, Gordon Kneale Brooke)

The Barmby Barrage at the mouth has prevented tidal water fouling the river since the 1970s and has a navigation lock. Elvington Lock is unusual by being owned by

two different river authorities with the top lock gate a steel guillotine lock operated by the Environment Agency and the lower wooden mitre gates owned by a separate authority now in ruinous condition preventing navigation.

Statement of Significance:

Several historic bridges such as the Grade II* 17th century Sutton Bridge (1148519) cross the river but there is little of great waterway heritage significance on the navigation itself though the Stamford Bridge lock is Grade II and its possible association with Sorocold raises its significance. The Pocklington Canal is entered off the Derwent and has some historic features (see separate entry)

Elements of considerable significance: Stamford Bridge Lock (1309871)

Stamford Bridge Lock. c1720, probably to a design of c1704 by George Sorocold for the Commissioners of the Derwent Navigation. (IoE 167741 Chris Broadribb)

Elements of some significance: locks and bridges

Main References: BR/P-T/RE

Websites: Wikipedia

Waterway: **Dick Brook Canal**

Status: waterway of archaeological interest
Overall Heritage Value: 2
Owner/operator: Severn Rivers Trust (fishing) CRT River Severn
Line: Astley Furnace to River Severn 1 mile
Date of opening: 1653
Statutory designations: Grade II 1

Summary Description and History:

Andrew Yarington built a Blast furnace at Astley in 1653 and with two locks made the Dick Brook navigable for ¾ mile to serve it.

Statement of Significance:

The remains of the two flash locks are of considerable rarity (Lewis et al 1969). The packhorse bridge over the Dick Brook and associated with the works is Grade II but the works site and slight remains of the locks are undesignated.

Packhorse Bridge, Astley (IoE 152272 Philip Williamson)

Elements of considerable significance: The upper half-lock dated 1715 on wall. (Lewis et al 1969)

Elements of some significance: The packhorse bridge (1349458)

Main References: P-T/rchs

Websites: Wikipedia

Waterway: **Donnington Wood Canal**

Status: abandoned, mostly built over
Overall Heritage Value: 2
Owner/operator: various
Line: Donnington Wood coal pits to Pave Lane with branches 7.5 miles
Date of opening: 1767
Closed: 1904
Statutory designations: Grade II 3

Summary Description and History:

Built by Lord Gower and his agent Thomas Gilbert to serve the pits in Donnington Wood this private tub-boat canal met its Lilleshall branch at Hugh's Bridge. But the latter was 43 ft lower, so a tunnel was built into the hill, with vertical shafts up to the main line. A pulley system enabled coal to be sent down to the lower level, for use in the production of agricultural lime, and limestone to be raised up to the top level, for use in the production of iron. This system had been replaced by an inclined plane by 1797, which was 123 yards (112 m) long and powered by a steam engine. The Lilleshall Branch had short arms to other limeworks and had seven locks to reach them. The system linked to the Wombridge Canal in 1788 to the Shropshire Canal in 1790. A further short arm was built in 1825 to new furnaces at Old Lodge Donnington Wood.

(Left) Bridge over former canal near Lilleshall (Wikipedia, Bob1960evens): (Right) The remains of the tunnel which served the vertical shafts from the main line of the canal prior to the building of the inclined plane in 1797. (Wikipedia Bob1960evens)

Statement of Significance:

Though the remains of this system are vestigial they form an important part of the story of the development of canal lifts and inclines nationally and indeed internationally. As a very early canal it also has significant relevance to the development of the Shropshire coalfield and its associated industries. The slight remains of the incline plane, and tunnel shaft system merits assessment for designation.

Elements of considerable significance: incline and tunnel shaft system

Elements of some significance: bridges over course of the canal at Lilleshall (1208351)

Canal Bridge Lilleshall Abbey (Shropshire CC HER)

Main References: P-T/RR/RE

1803 Plymley, J. *A General View of the Agriculture of Shropshire* Telford's article on canals dated Nov 1800 pp 284 -316

2000 Trinder, B. *The Industrial Revolution in Shropshire* Phillimore

2016 Trinder, B. *The Industrial Archaeology of Shropshire* 2nd ed, Logaston Press

Websites: Wikipedia

Waterway: **Dorset & Somerset Canal**

Status: archaeological remains (as never opened)
Overall Heritage Value: 4
Owner/operator: various landowners
Line:
Projected canal from Poole to the Kennet & Avon Canal near Bradford on Avon with a branch from Frome to Nettlebridge 8mile
Date of opening: Never completed, major construction works on branch only
Statutory designations: Grade II 4

Summary Description and history:

The Dorset and Somerset Canal was intended to link Poole, in Dorset, with the Kennet and Avon Canal near Bradford on Avon, Wiltshire. A branch was to go from the main line at Frome to the southern reaches of the Somerset coalfield at Nettlebridge. Construction of the branch started in 1796, using boat lifts rather than locks to cope with changes of level, but the company ran out of money, and the canal was abandoned in 1803, never to be completed.

The main canal was never started and only about 8 miles of the intended 11miles of the branch was cut. A few structures were built and survive. The western end was at ST66504875. A bridge was constructed at Edford at ST66854883 with a basin to the west. At Coleford at ST68504875 the canal crossed a valley by a two-arched viaduct. Much of the facing stone has been removed but the arches survive. To the east the canal must have been tunnelled under the road. Arches are visible under the later chapel at ST68754887. Near Goodeaves Farm (ST693493) a tunnel was intended and may have been started, the entrance has been obscured by tipping from the colliery. South of Vobster Cross the Mells Road crosses the canal by an original bridge

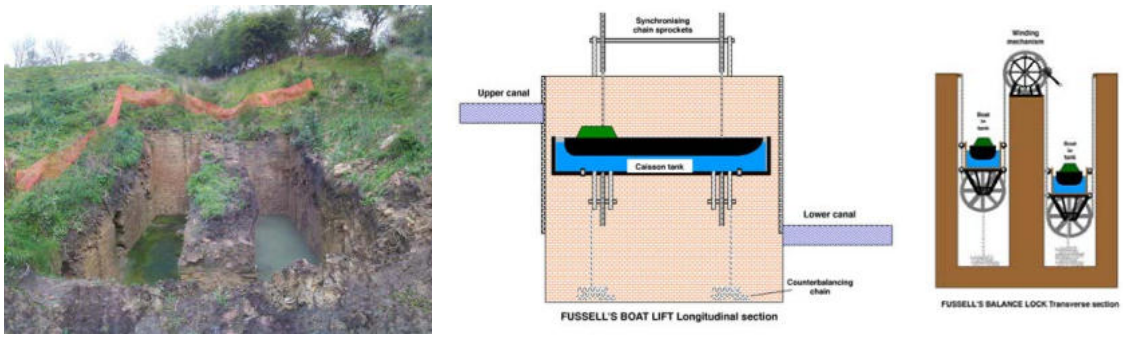
On Barrow Hill (ST7450) a trial "balance lock" (a lift) was constructed and its remains are visible. Five lifts were intended for the descent to Frome.

(Left) Aqueduct near Coleford (IoE 267856 Dr Neil Bentham): (Right) Murtry Aqueduct (IoE 267107 Robert O. Caudwell)

Another aqueduct was constructed to cross Murtry Bottom (ST762498). The planned junction with the main canal would have been to the northwest of Frome but only a stretch of retaining wall survives to the north of Whatcombe Farm (ST769491).

Statement of Significance:

Fussell balance lock trial site, Mells is a very significant site. Trial balance lock has been excavated while a flight of four such locks (lifts) to the east are visible as an earthwork.



Excavation of Fussell's Trial Balance Lock (Dorset & Somerset Canal Society)

Edford canal bridge and Coleford Aqueduct, Murtry Aqueduct are grade II as is the retaining wall near Whatcombe Farm.

Elements of considerable significance: Fussell's trial balance lock (lift) with the remains of the flight of lifts nearby

Elements of some significance: The aqueducts at Coleford and Murtry, Coleford Tunnel and the in-filled Edford and Vobster bridges, the retaining wall near Whatcombe Farm

Main References:

1971 Clew, K. *The Dorset & Somerset Canal* D & C (1971)

undated Hunt, D. and Tuddenham, A. *Fussell's Trial Balance Lock, a Boat Lift near Mells* (download dorandsomcanal.org)

1984 Tew, D. *Canal Inclines & Lifts* Alan Sutton

Websites Wikipedia Dedicated site: dorandsomcanal.org

Waterway: **Driffield Navigation**

Status: partly restored navigation
Overall Heritage Value: 2
Owner/operator: Driffield Navigation Trust
Line:
Driffield to River Hull at Leven Canal 11 miles
Date of opening: 1770
Statutory designations: Grade II 6

Summary Description and History:

The Driffield Navigation was promoted by merchants in Driffield to improve links to the port of Hull and Smeaton suggested a short link with one lock to the River Hull but a new scheme by John Grundy was preferred shortening the whole route with a longer canal and four locks with a two-lock staircase at Snakeholme.

(Left) Snakeholme Staircase Lock: only the upper chamber is now used. (Wikipedia Mykaskin):
(Right) Cranes at Riverhead, Driffield (Keith Falconer)

Construction was authorised in 1767, and it was fully open, part river, part canal in 1770 with four timber floored locks. Trade gradually developed and by the mid-19th century the navigation was quite prosperous and even resisted railway competition. In the 20th century trade fell away with the last keel reaching Driffield in 1945 and all commercial traffic ceased in 1951. By the 1950s there was no managing body capable of making decisions and some low bridges were fixed and it became only a water supply channel. Pressure from the Inland Waterways Association resulted in the Driffield Navigation Trust to be set up in 1978 as a charity to be responsible for the waterway and restoration slowly proceeded. By 2009 the locks had been restored by volunteers and extensive fund raising. The warehouses and large mill at Riverhead in Driffield have been converted to apartments and two cranes restored.

Both cranes are hand operated swivel cranes with cast iron frames and gearing, wrought iron stays and timber jibs and are listed. The smaller one (1083382) has no maker's plate while the larger one (1346637) of 1862 is by Bray Waddington, Leeds. Though little survives of the early fabric of the locks, the quality of Riverhead complex of warehouses, mill and cranes warrant the heritage value.

Statement of Significance:

The locks, although restored, are of historical significance and all four including Whinhill Lock (1162191) are listed Grade II.

(Left) Snakeholme Locks (IoE 166962 Les Waby): (Right) Winhill Lock (IoE 166947 Les Waby)

Elements of considerable significance: the two cranes

Elements of some significance: the four locks and the warehouses and mill at Riverhead Driffield.

Main References: **P-T/BR/ RE/RR/**

2013 The River Hull Valley Drainage Group *Becks. Banks, Drains and Brains*

Websites: Wikipedia

Waterway:	**Droitwich Canal and Droitwich Junction Canal**

Status:	CRT restored waterways	
Overall Heritage Value:	3	
Owner/operator:	CRT	
Line:		
	Droitwich Canal – Droitwich to Severn	7 miles
	Droitwich Junction Canal W & B Canal to Droitwich	2 miles
Date of opening:	Droitwich Canal	1771
	Droitwich Junction canal	1854
	Abandoned	1939
	Restored	2009
Statutory designations:	Grade II	4

Summary Description and History:

The six miles long Droitwich Canal, surveyed by James Brindley and engineered by John Priddy, was built under an Act of 1768 and opened with 8 broad locks in 1771. Like most of Brindley's canals, it was a contour canal, following the contours as much as possible, to reduce the number of embankments and cuttings required and the locks, which were originally built to accommodate Severn trows 14.5 feet wide and 64 feet (20 m) long, were lengthened in 1854 to take standard narrow boats 70 feet long off the Junction Canal which opened in that year.

Hawford Bottom Lock, junction with Severn (Geograph Roger Kidd)

The Junction Canal, 1.75 miles long with seven narrow locks, was built to connect to the Worcester & Birmingham Canal in 1854 to counter competition from the railways. By 1914 both canals were falling into decay and were formally Abandoned in 1939.

Mildenham Lock No 6 in 2003 before it was restored. (IoE 147947 Richard Sabey)

Despite some in-filling a restoration group was formed 1969 and a campaign led by the IWA resulted in the formation of the Droitwich Canals Trust which with funding

from a wide group of sponsors started restoring the canal. The challenges were immense including getting under the M5. In 2004 a large grant from the HLF with other funding from Advantage West Midlands, the local councils and other sponsors totalling over £10 million allowed British Waterways to co-ordinate the restoration.

A new double lock during construction to pass under the M5. (Wikipedia geni)

The Barge Canal section was completed by September 2010 and the whole canal was opened a year later. The huge volunteer effort involved was recognised by the Canal Trust, winning the 2012 Heritage Angel Award.

The rebuilt Hanbury Locks (Wikipedia, geni): (Right) Mildenham Bridge 2003 (IoE 147946 Richard Sabey)

Statement of Significance:

The Droitwich Canal is of considerable historical interest as an early pioneer canal detached from the main system. The canals, though their fabric has been heavily restored, have a very significant place in the history of the waterways rescue and restoration movement. Linacre, Mildenham and Salwarpe Bridges (1081168, 1172780,1350222) are Grade II as is Mildenham Lock No 6 (1081169).

Elements of considerable significance: none

Elements of some significance: bridges and restored locks

Main References: **BR/P-T/RE**

2008 Squires, R. *Britain's restored canals* Landmark Publishing

Websites: Wikipedia

Waterway: **Erewash Canal**

Status: CRT

Overall Heritage Value: 3 (BW:L)
Owner/operator: CRT
Line:
Langley Mill to the Trent 12 miles
Date of opening: 1779
Statutory designations: Grade II 16

Summary Description and History:

Built under an Act of 1777 and engineered by John Varley there was much enthusiaScheduled Monument for the construction of this broad canal with 14 locks from supporters anxious to access coal along the Erewash Valley. The ensuing trade realised huge profits until the railways began to seriously erode profitability around the mid-19th century.

(Left) Lock Keeper's Cottage, Sandiacre Lock at Junction with the Derby Canal (IoE 82216 Peter Holt)
(Right) Aqueduct over the River Erewash near Shipley Gate (Wikipedia, Martin Cordon)

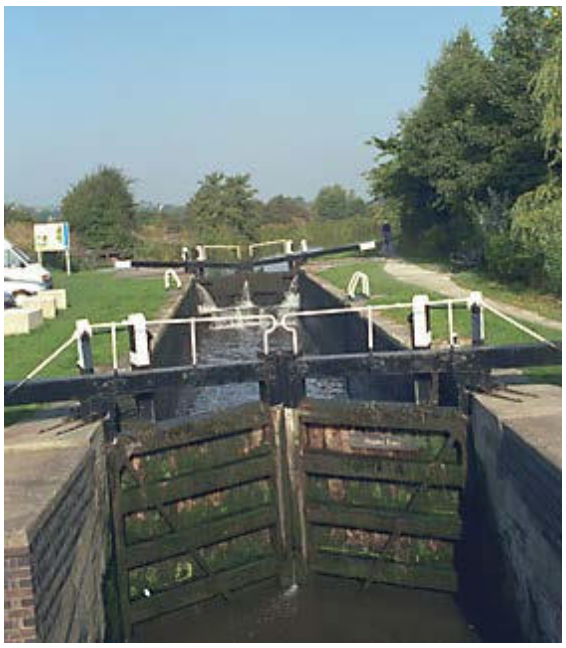
Through traffic via the Cromford and Nottingham Canals had collapsed and the only substantive operations remaining were in iron goods from the Stanton works and coal.

In 1962 the former British Transport Commission declared the canal unnavigable above Gallows Inn to the north of the junction with the abandoned Nutbrook Canal. In 1968 The Erewash Canal Preservation & Development Association was created and restoration work led to the Erewash Canal being upgraded in the 1980s from 'remainder' to 'cruiseway' status as defined by the Transport Act 1968

Statement of Significance:

This is an early canal built by one of Brindley's pupils and there are a few features, buildings and structures of distinction though many have been repaired or altered. Sandiacre Lock and its associated buildings is probably the most historic surviving canal site, although there are impressive industrial buildings – warehouses, factories,

chimneys alongside the canal in places. Sandiacre Lock (1087973) and seven other locks and seven bridges are Grade II.



Lock at Shipley Gate (IoE 78818 Peter Holt)

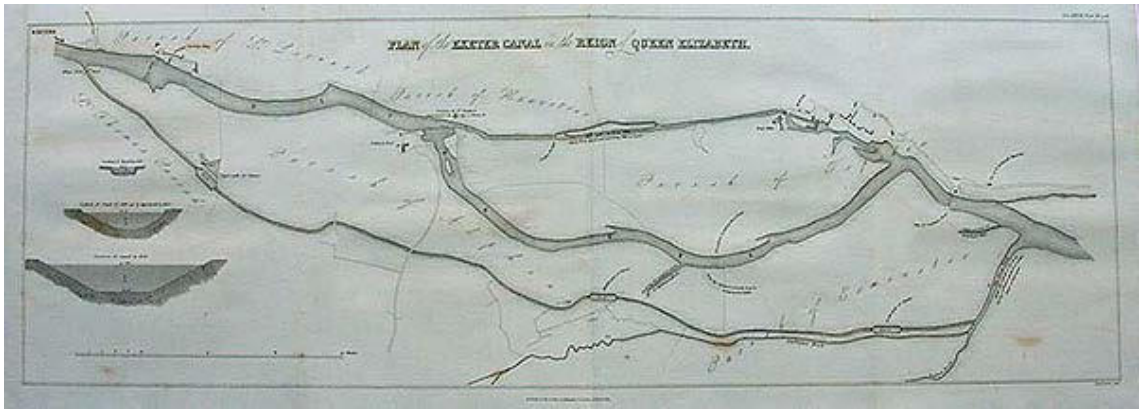
Elements of considerable significance: Sandiacre Lock and associated buildings

Elements of some significance: lock bridges and canal side buildings eg Shipley Gate lock (1335339)

Main References: **BR/P-T/RE**

Websites CRT; Wikipedia; Erewash Canal Preservation & Development Association

Waterway:	**Exeter Canal**	
Status:	open waterway	
Overall Heritage Value:	4	
Owner/operator:	Exeter City Council	
Line:	Exeter to Topsham	5 miles
Date of opening:	to Topsham 1676	
Statutory designations:	Grade I	2
	Grade II*	4
	Grade II	5
	Total	11



Exeter Canal: Plan in the Reign of Queen Elizabeth I.
James Basire, Society of Antiquaries of London, 23rd April 1839

Summary Description and History:

The first canalisation of the River Exe, a short 1 ¾ mile section from the city walls to below Countess Weir was completed in 1563 by John Trew and employed the first pound locks to be used in England. Improvements at the Topsham end saw the navigation complete by c.1676. Further improvements including the re-building of the locks by James Green in the early 19th century allowed ships of 350 tons to reach the new basin in Exeter. Exeter City Council own and manage the waterway with CRT as a advisory stakeholder.

Statement of Significance:

Despite its great historical significance there is comparatively little of built heritage significance on the waterway itself due to later improvements such as the three much rebuilt locks and Turf Lock (1097037) is Grade II. However, the complex of related early buildings around the basin and river wharf in Exeter is exceptional, hence the high Overall Heritage Value.

These include the Grade I Custom House (1223038) and Quay House (1223072) and the Grade II* warehouses Vaults 1-4 (1223045) and Vaults 6-11 (1223046).

(Left) Turf Lock (IoE 85450 Jean M. King):

(Right) The Custom House (IoE 418578 Ben White)

Quay House, 17th century transit shed (IoE 418586 Ben White): Exeter Quay warehouses. (David Cornforth)

Elements of considerable significance: Exeter Basin with its warehouses, Fish Market, Kings Beam and cannon bollards. The Customs House and Quay House.

Elements of some significance: The Turf Locks Hotel, built by James Green and bascule and swing bridges carrying the A379

The Turf Locks Hotel and the bascule and swing bridges (David Cornforth)

Main References: BR/P-T/ McK/TT

Websites Wikipedia

Waterway: **Fletchers Canal**

Status: Abandoned and derelict
Overall Heritage Value: 0
Owner/operator: various
Line:
Wet Earth Colliery to MB&B Canal 1.5 miles
Date of opening: 1800
Closed: 1952
Statutory designations: none

Summary Description and History:

In the 1790s a colliery owner, Matthew Fletcher, widened a leat built by James Brindley in 1756 to pump water from Wet Earth Colliery and in 1799 this was made navigable by Benjamin Outram by the installation of a lock when the canal connected with the Manchester Bolton & Bury Canal in 1800. The colliery prospered and this private canal carried coal until 1928 when the colliery itself closed. Some other traffic continued until final closure in 1952 since when the canal has become derelict and overgrown.

Fletchers Canal early 20th century (Wikipedia, David Lane)

Statement of Significance:

Of some slight historical significance because of the Brindley connection and the possibility that underground levels were used, but little of the built above-ground heritage is significant.

Elements of considerable significance: none

Elements of some significance: possibly site of Wet Earth Colliery

Main References: P-T/RR

Websites: Wikipedia

Waterway: **Foss Navigation**

Status:	Short section navigable (1.5 miles in York)	
Overall Heritage Value:	2	
Owner/operator:	City of York (within city)	
Line:		
Sheriff Hutton to River Ouse		11.5 miles
Date of opening:	1804	
Statutory designations:	Grade II*	1
	Grade II	1

Summary Description and History:

By 1804 part of the river was canalised as far as Sheriff Hutton Bridge by the building of eight locks but today is only navigable for some 1.5 miles upstream of Castle Mills Lock, with only Castle Mills Lock still operating.

(L-R) Foss Bridge, 1812 (IoE 463418 Martin Roberts): Castle Mills Lock (IoE 462989 Martin Roberts); Blue Bridge (Wikipedia, dashwortley)

Statement of Significance:

Crossed by several bridges including Foss Bridge (1257827) of 1812 is Grade II* but the interesting metal Blue Bridge of 1895 is undesignated while Castle Mills Lock (1259357) is Grade II.

Elements of considerable significance: none

Elements of some significance: Foss Bridge 1812, Blue Bridge 1895

Main References: BR/P-T

Websites: Wikipedia

Waterway: **Fossdyke and Witham Navigations**

Status:	CRT waterway	
Overall Heritage Value:	2	
Owner/operator:	CRT	
Line:		
	Torksey to Braypool Lincoln (Foss Dyke)	11 miles
	Braypool to Boston (Witham)	36 miles
Date of opening:	Roman times onwards; major improvements in 17th and 18th centuries	
Statutory designations:	Grade II	2

Summary Description and History:

Both navigations have been used since antiquity and underwent many periods of improvement. On the Fossdyke section these included in 1672 a navigable sluice or lock at Torksey which as now rebuilt is the only lock on this section. It has six sets of gates, three sets facing Lincoln, and three facing the river, which is tidal at this point, and so its level can be higher than the level of the canal. The footbridge and the lock are listed Grade II (114315). Traffic continued into the 1970s.

On the Witham section in 1763 the Grand Sluice at Boston was completed, followed by the accompanying lock in 1766 and then three more locks. Further improvements were made in the 19th century but trade declined with the advent of the railways and regular traffic ended in 1952.

(Left) Torksey Lock (IoE 197037, Robin W. Symons): (Right) Grand Sluice, Boston (IoE 486539 Peter D Dewar)

Statement of Significance:

Originally constructed by Roman military engineers in AD 120 to serve the Lincoln garrison, the navigation was improved under Henry I and many times again in 17th–mid-19th centuries. Navigation links to several navigable drains and delphs. The landscape is flat Fenland and the navigation has high banks in places and few historic features compared to other waterways. Brayford Pool in Lincoln and the Grand Sluice (1389076) in Boston are the main features with warehouses in Boston

and Lincoln. Anton's Gowt side cut and lock were added in 1821, Bardney Lock and cut in 1865. Historic buildings are few although there are cottages at Bardney, Anton's Gowt and Torksey Lock. Parts of the Navigation have archaeological potential.

Elements of considerable significance: Grand Sluice, Boston, built in 1763, later much altered.

Elements of some significance: Torksey Lock (1147315) and associated buildings Brayford Pool, Anton's Gowt

Main References: BR/P-T/McK/RE

Websites: CRT ; Wikipedia

Waterway: **Glastonbury Canal**

Status: abandoned and partly converted to Railway and drainage channel
Overall Heritage Value: 0
Owner/operator: Drainage EA?
Line:
Glastonbury to River Parret at Highbridge 14 miles
Date of opening: 1833
Closed: 1854
Statutory designations: none

Summary Description and History:

Glastonbury may have been served by a waterway from Saxon times and certainly by the monks of Glastonbury Abbey. Navigation was improved by an Act of 1827 authorising a canal designed by Richard Hammet a local man whose route was later revised by John Rennie. It involved two locks and cast iron aqueducts over the South drain and River Brue and cost much more than the capital raised. It was operated by The Glastonbury Navigation & Canal Company, but was a financial failure and sold to a railway company in 1848.

Most of it was abandoned as a navigation in 1854, when a railway was built along the towpath. The Highbridge portion remained open until abandoned in 1936 and has since been filled in.

(Left) Cripps River Bridge (Wikipedia Adrian and Janet Quantock): (Right) Abutments of aqueduct over the River Brue (Graces Guide)

Statement of Significance:

Little of significance survives other than the remains of the three-arched aqueduct and syphon over the River Brue. In 1972 there were slight remains of the lock at Shapwick and the abutments of the cast iron aqueducts over the South Drain and River Brue.

Elements of considerable significance: none

Elements of some significance: three-arched aqueduct and syphon over the River Brue and the masonry abutments to two demolished cast-iron aqueducts.

Main References: **P-T/RR**

2001 Body, G. and Gallop, R. *The Glastonbury Canal* Fiducia Press

Websites: Wikipedia
Graces Guide to British Industrial History – Glastonbury Canal
(https://www.gracesguide.co.uk/Glastonbury_Canal)

Waterway: **Gloucester & Sharpness Canal**

Status: CRT waterway
Overall Heritage Value: 5
Owner/operator: CRT
Line:
Gloucester Docks to Severn at Sharpness 16.5 miles
Date of opening: 1827
Statutory designations: Grade II 31
Architectural Heritage Survey Gloucester & Sharpness: 168 entries
Heritage at Risk: Saul Junction Lock

Summary Description and History:

The Gloucester & Sharpness Canal had a difficult early life and had the distinction of being bailed out by the national exchequer. Originally conceived as the Gloucester and Berkerley Ship Canal in 1793 an Act of Parliament was obtained authorising the raising of a total of £200,000. The project rapidly encountered financial difficulties – to such an extent that Mylne left the project in 1798 . By half way through 1799 costs had reached £112,000 but only 5½ miles of the canal had been completed. Robert Mylne's role was taken over by James Dadford who had originally been engaged as resident engineer on the project in 1795. Lack of funds resulted in the company ceasing to employ Dadford in 1800.

The canal finally opened in 1827 having cost some £440,000. At 86ft 6in wide and 18ft deep, taking craft of 600 tons (with maximum dimensions 190ft long and 29ft wide), it was the biggest canal in England, a true ship canal. During the following decades, several large warehouses and a dry dock were built at Gloucester.

(Left, centre) Sharpness Old Dock (Keith Falconer): (Right) Swing Bridge Keeper's House

Ships entered at Sharpness Old Dock and passed numerous swing-bridges (originally wood, now steel) before reaching Gloucester. Its water supply comes from the Severn, the Cam and the Stroudwater. At Saul Junction there is a unique 'canal crossroads' where the Stroudwater Canal is bisected by the Gloucester & Sharpness and there are bridges, a lock, cottage and boatyard with dry dock.

Thomas Telford was involved in the latter years of construction – recommending and approving works for the Loans Commissioners who had taken over

responsibility for the final construction the waterway. Thomas Fletcher was recruited as resident engineer, and a contract for completing the canal was awarded to Hugh McIntosh in April 1823.

The Main Basin, Gloucester Docks' was the original terminus of the ship canal from Sharpness, opened in 1827 with a lock for smaller craft to continue up the River Severn to the Midlands. . By the middle of the century trade, especially in corn, was so prosperous that facilities at the docks at Gloucester were greatly expanded. The Victoria Dock was opened in 1849 and both docks were surrounded by multi-storey warehouses of which fifteen still survive and are mostly designated, with Llanthony Warehouse (1245607) which now houses the Gloucester Waterways Museum, the latest and largest. The museum reopened in 2016 after a major facelift. Gloucester Docks despite some losses are the finest complex of 19th century canal warehouses and dock facilities in the country.

River Severn lock, 1826; Lock keeper's cottage,1826; Dock Office ,1831 (IoE 472560, 472462, 472555 Jack Farley)

Former office and store for the former weighbridge at the east gate entry to the Gloucester Docks. 1849; Dry Docks 1837 1852-3 (IoE . 472522 472557, 472558 Jack Farley)

The original small dry dock for repairing most of the vessels in the early days was augmented by a second dock in 1853 as larger ships came into service.

North Warehouse 1827; Lock Warehouse 1834 and Sturge's Warehouse 1840 (IoE 472566 , 472564, 472569 Jack Farley)

Vining's 1840, Herbert 1846, Kimberley 1846,Philpotts Warehouses1846 (IoE 472571, 472561, 472562, 472567)

Victoria 1849 and Albert Warehouses 1851 (IoE 472570, 472550)

Alexandra Warehouse 1870; Llanthony Warehouse 1873 (IoE 472552, 472563)

Pillar Warehouse 1838, and Llanthony Provender Mill 1862 Bakers Quay (IoE 472349 472348 Jack Farley)

Baker's Quay was constructed in the late 1830s to provide much needed additional quay-space and to provide even more quay-space, the Victoria Dock with even more warehouse provision was opened in 1849.

Statement of Significance:

The survival of the historic Gloucester Docks gives it high heritage value, and its collection of Greek Doric bridge-keeper's cottages (12379820) are unique in canal terms. Sharpness Old Dock has a stone lined basin, dock house and locks and has high historic value.

Approach and Entrance to New Dock (Keith Falconer)

The New Dock is still in commercial use and has significant workers' and managers' housing as well as the large North Warehouse (1237989) which is Grade II.

Gloucester Docks contain the finest collection of canal warehouses in the country including the North Warehouse (1245466) of 1827 which was possibly by the same architect and the model for the Liverpool & Manchester Railway warehouse of 1831 in Manchester – the earliest large railway warehouse.

Elements of considerable significance: Gloucester Docks with its warehouses, dry docks and chapel, Sharpness Old Dock, Sharpness New Dock, Saul Junction, Greek Doric bridge-keepers houses.

Elements of some significance: numerous subsidiary features

Main References: BR/P-T

1984 Conway-Jones, H. *Gloucester Docks: an illustrated history* Alan Sutton

2009 Conway-Jones, H. *Gloucester Docks: An Historical Guide* Black Dwarf

2009 Conway-Jones, H. *The Gloucester and Sharpness Canal* Amberley

Websites: CRT Wikipedia

Waterway: **Grand Surrey Canal**

Status: Closed and partly in-filled
Overall Heritage Value: 0
Owner/operator: various
Line:
Peckham and Camberwell to Rotherhithe (Surrey Docks) 4 miles
Date of opening: 1810 and 1826
Statutory designations: None

The Norway Cut swing bridge crosses a channel from Greenland Dock to the closed Norway dock (Wikipedia, Steven Craven)

Summary Description and History:

The Grand Surrey Canal was authorised by an Act of 1801. Work began on the canal, but at the same time, the London dock system was in its early stages of development, and there were proposals by John Hall in 1802 to construct a dock at Rotherhithe, close to the lock by which the canal gained access to the Thames. The canal company agreed to construct it in 1803, and although it was poorly funded, the 3-acre (1.2 ha) basin, together with a ship lock, was completed and opened on 13 March 1807. The promotion of the Croydon Canal helped the company to open the first 3 miles (4.8 km) of the canal, as far as the Old Kent Road, in 1807, a second Act of Parliament, obtained in 1807, authorised them to raise another £60,000, which was used to extend the canal to Memel Wharf and a basin at Camberwell. This work was completed in 1810. A short branch of about 0.5 miles (0.80 km) was constructed in 1826, running from Glengall Wharf to Peckham Basin.

The Rotherhithe end of the canal saw many changes, as the docks developed. As first built, the canal ended at the Stave dock, which was connected to the Thames by a lock. This was replaced by a new lock in 1860, built to the west of the original, which linked the Thames to a triangular basin, known as the Surrey Basin, which was itself linked to Island Dock and Albion Dock. Island Dock led into Russia dock, where the canal had an entrance lock. The canal entrance lock was swept away in 1904, when the Greenland Dock was extended, and a new entrance lock was built on its south side. By this time, nearly 1 mile (1.6 km) of the original canal had been destroyed by dock construction.

The canal was never very profitable, as competition between the London dock companies kept toll rates low. London's docks were rationalised in 1908 and the canal was managed as part of Surrey Docks, and although there were few changes to its operation, it became known as the Surrey Canal. The Camberwell basin and the final 500 yards (460 m) of the canal were abandoned in the 1940s, and had been filled in by 1960. The timber trade to the docks ceased in the early 1970s, resulting in the docks closing, and the canal being filled in. The section of canal between South Bermondsey and Deptford was opened as a vehicular road and renamed Surrey Canal Road in the 1980s. The Greenland Dock remains in water, and is connected to the South Dock, now a marina accessed to the Thames through a lock.

A multi-million pound redevelopment of the area known as the Surrey Canal Triangle has been granted permission by Lewisham Council. Amongst the proposals is a scheme of residential apartments which will feature a distinctive waterway, replicating the original line of the canal.

Statement of Significance:

As a consequence of its very complex history of alteration and replacement almost nothing of significance survives

Elements of considerable significance: none

Elements of some significance: none

Main References: BR/P-T/RE

Websites: Wikipedia

Waterway: **Grand Union Canal**

Status:	CRT Waterway	
Overall Heritage Value:	Main Line	5
	Branches	1-4
Owner/operator:	CRT	
Line:	see below – 300 miles at peak	
Date of opening:	amalgamation 1929 onwards	
Statutory designations:	Scheduled Monument	3
	Grade II*	7
	Grade II	200

Constituent Canals (and branches) by date of opening:

- Soar and Loughborough Navigations (total 27 miles improved 1794)
  - Loughborough Navigation (9.5 miles improved 1780)
- Grand Junction (94 miles opened 1796/1800 (except Blisworth Tunnel) fully opened 1805)
  - Wendover Arm (7 miles 1799)
  - Paddington Arm (13.5 miles Opened 1801)
  - Buckingham Arm (10.5 miles, 2 locks, opened 1801)
  - Northampton Arm (5 miles, 17 locks, opened 1815)
  - Aylesbury Arm (6 miles, opened 1815)
  - Slough Branch (5 miles opened 1882)
- Leicester Line (opened 1797/1814)
  - Leicester & Northamptonshire Union Canal (17 miles opened 1797)
  - (Old) Grand Union Canal (23 miles opened 1814)
  - Market Harborough Arm (6 miles, lock free, opened 1809)
  - Welford Arm (old Grand Union Canal 1 mile 1814)
- Warwick & Birmingham (23 miles opened 1799)
  - including Saltisford Arm (original terminus 1799)
  - Birmingham and Warwick Junction Canal (2.5 miles 1844)
- Warwick & Napton (14.5 miles opened 1799)
- Regents Canal (8.6 miles opened 1820)
  - Hertford Union (1 mile, opened 1830)

Overview:

The current Grand Union Canal was not constructed as an entity, but is the result of an amalgamation of waterways in 1929 brought together under an Act of 1928 initiated by the Regents Canal. The Regents Canal had taken over the Grand Junction Canal in 1927 which had owned the Leicester Canals since 1894 and was proposing to buy the Warwick & Birmingham, the Birmingham & Warwick

Junction, and the Warwick & Napton Canals. It thus comprises several historically independent waterways – the oldest being the navigations around the River Soar in Leicestershire and the longest being the Grand Junction Canal from Braunston to the River Thames. With further acquisitions following the formation of the Grand Union Canal Company, the conglomeration amounted to more than 300 miles, including arms and links to Leicester and industrial Nottinghamshire. But the essential component was the direct main line from Birmingham to London, of which the Grand Junction Canal with its Paddington Arm to the Regents Canal formed the backbone.

Summary Description and History:

The modern GUC is an amalgamation of several older, separate waterways – some with broad locks others with narrow locks and with an assortment of engineers. Principal amongst these canals was the Grand Junction (William Jessop and James Barnes) which ran from Brentford to Braunston while the Warwick & Napton (Wm Felkin, replaced by Chas. Handley, 1795 – 1800) and the Warwick & Birmingham (Wm Felkin, replaced by Philip Witton, 1793 – 1799) continued the new GUC Main Line to Salford Junction, Birmingham – a total of 135 miles and 165 locks.

Various arms and branches including the Wendover Arm (1799), the Buckingham Branch (1801), the Paddington Branch (1801), Northampton Arm (1815), Alyesbury Arm (1815) and the Slough Arm (1882) fed into the GUC Main Line. The Leicester Line (1814) which via the Soar Navigation gave access to the River Trent near Sawley extended the system a further 66 miles and 59 locks and across that river to the 12 mile long Erewash Canal which was bought by the GUC in 1932 was therefore was technically part of the GUC but is here considered separately.

Much of the main Line had broad locks but the original gauge of the Warwick & Napton and the Warwick & Birmingham was 72-0 x 7-0. In 1932-34 much of the GUC was widened to 83-6 x 15-0, with the exception of Camp Hill Locks. This 'modernisation' is significant as being one of the last large scale attempts at improving a UK inland waterway for C20 transport purposes.

Grand Union Canal – Main Line to Birmingham (opened 1805 onwards)

Heritage Value: 5

Grand Junction Canal from Brentford to Braunston and thence via the Warwick & Napton and the Warwick & Birmingham to Birmingham

Statement of Significance:

5 Scheduled Monuments, 1 Grade II*, 171 Grade II listed buildings.

The backbone of the GUC, the Grand Junction built under an Act of 1793 ran from Brentford to Braunston (Engineers: Jessop, 1793 – 1805, John Woodhouse 1805-?, James Barnes RE 1793-1805, also others). In its 93 miles it has 101 broad locks and notable features such as Wolverton Aqueduct (1006934) an iron replacement of 1811, Blisworth Tunnel and Weedon Beck (1076513) .

The Grand Junction from the Thames at Brentford to Braunston has an immese range of heritage features. Its tunnels include the 2049 yard Braunston (1076445) opened 1796 and the 3056 yard Blisworth (1294177) finally opened in 1805.

(Left) Braunston Tunnel West entrance (IoE 360963 John Airlie Hunter): (Right) Blisworth Tunnel south portal (IoE 234981Neil Guiden)

With water supply, and its management, always a problem, it has numerous early reservoirs and sveral pumping stations were needed such as the group called the Northern Engines including that at Ivanhoe and the large Tringford Pumping Station on the Wendover Feeder Arm dating from 1816 onwards. Even a section of the River Brent was dammed in 1835 to supply its southern end and Cool Oak Bridge rebuilt to create a reservoir.

(Left) Ivanhoe Pumping Station Lock 35 1838-41 (IoE 42047 Richard Hart): (Right) Cool Oak Bridge over River Brent (IoE 482431 Anthony Rau)

An unusual water gauge designed in 1825 as an obelisk testifying to an agreement between John Dickinson at Batchworth Mill, the landowner R. Williams of Moor Park and the Grand Junction Canal whereby the water level at this spot was fixed, following a long dispute, is to be found in a pond on the south bank of the canal near Rickmansworth.

(Left) Obelisk, near Rickmansworth (IoE 158791 Jane Black)
(Above) Wolverton Aqueduct 1811(Wikipedia Dr Peter R Lewis)

Most notable amongst its aqueducts is the 'Iron Trunk' Aqueduct of 1811 at Cosgrove which replaced an earlier masonry aqueduct which had collapsed and was the widest metal aqueduct of the early 19th century – most of the other iron aqueducts being built to accommodate narrowboats. There are several smaller masonry aqueducts and one such crosses an unusual horse tunnel through the embankment at Cosgrove.

Its locks also display a wide variety of features. The entrance lock off the Thames at Brentford has to cope with large variations in the height of tides producing some unusual views.

(Left) Horse tunnel below canal, Cosgrove (IoE 235243 Alistair F Nisbet): (Right) Thames Lock, Brentford, at the peak of a spring tide (Wikipedia WLD)

Most of its lock flights were rebuilt in the 20th century modernisation including the notable 21 lock flight at Hatton on the Warwick & Birmingham Canal, dating from the 1930s,

A panorama of Hatton Locks on 2010 (Wikipedia, Matt)

The variety of bridges is also impressive in both material and style. It has ornamental bridges at Cosgrove and Grove House. The Gothick style dressed limestone Cosgrove Canal Bridge of c.1800 is Graded II*. In 1800 the two halves of the Grand Junction

Canal met here as construction began at Brentford in Middlesex and Braunston, Northamptonshire and it is said that a certain Colonel Solmons, 'Lord of the Manor', agreed to the cutting of the canal on condition that he was allowed to erect the necessary bridge but it may be that close proximity to Priory was the main reason.

The classical, elaborately stuccoed bridge at Grove House with its towpath arch carried a private drive to The Grove though nearby, and of similar date, is brick built.

Cosgrove Bridge (IoE 235242 Alistair F Nisbet):

Grove House Bridge (IoE 158164 Jane Black)

Throughout the system there are several examples of the graceful iron roving bridges produced by the famous Horseley Ironworks, Tipton which form 1825 onwards had produced some very notable iron bridges in the Birmingham area. The somewhat later metal Bridge (No.33) has five cast-iron beams with three wrought-iron tie rods and arched brick vaults between beams presaging later railway bridges.

(Left) Graceful cast iron roving bridges at Braunston c.1830 (IoE 360964 John Airlie Hunter)
(Right) Iron bridge at Nether Heyford (IoE 234767 Michael E. Megeary)

Alongside these, it has of course a great many routine early 19th century brick bridges, sometimes doubled later in the century as at Marsworth.

(Left) Bridge No 130 Marsworth (IoE 42085 George Harper): (Right) Bridge No 132 Marsworth (IoE 42086 George Harper)

The Grand Junction Canal also has fine maintenance and boat yards and company buildings at Bulbourne and at Braunston and a dry docks at Little Braunston and Marsworth.

Bulbourne Workshops (IoE 42075, 42074, 42073 Nick Jarvis)

Braunston Wharf tollhouse and maintenance basin. (IoE 360958 360957 John Airlie Hunter)

(Left) Little Braunston lock and dry dock (IoE 360967 John Airlie Hunter)
(Right) Marsworth Canal lock of c.1800, with dry dock, built as a narrow duplicate lock 1838-9, altered later C19. (IoE 42089 Nick Jarvis)

(Left) Top Lock, Stoke Bruerne (Wikipedia Stephen Dawson)
(Centre & Right) Stoke Bruerne Warehouse (Waterways Museum) and re-erected Weighing Machine in disused lock (IoE 234990, 234982 Neil Guiden)

Some small settlements developed beside the Grand Junction and Stoke Bruerne with its warehouses, dwellings and inns is possibly the best known. Indeed, the GU Main Line has probably the greatest concentration of historic canal dwellings (cottages and larger houses) and these range in date and style from early 19th century pattern book variants to 1900s neo-vernacular, 1930s sub-Voysey and later builders' type properties.

(Left) Leighton Lock Cottage (IoE 350235 K W Newland)
(Right) Stockers Lock Cottage, Rickmansworth (IoE 158879 John Back)

(Left) Cottage Lock 93 Southall (IoE 200932 Quiller Barrett)
(Right) Cottage Lock No 4 Tring (IoE 355809 Nick Jarvis)

When the Grand Junction Canal was being constructed, the good communication being established between London and the country's interior well away from French attack prompted the Crown to develop a Barracks and Powder Magazines with a Royal Lodge for refuge at Weedon Bec these are Grade II* (1203443). A spur off the canal passed through a Gatehouse complete with portcullis.

(Left) Weedon Bec Barracks Canal Gatehouse (IoE 360817 Roger Ashley); (Right) London Coal Duty Markers (1851 and 1861) Stockers Lock, Rickmansworth (IoE 158786, 158787 Jane Black)

The Grand Junction Canal even qualified for London Coal duty markers and it has stone and iron variants.

Warwick & Napton (14.5 miles opened 1799)

Heritage Value: 3

Promoted by the same Warwick interests as the Warwick & Birmingham, the Warwick & Napton left the latter's line near Saltisford and connected with the Oxford Canal near Napton hence with the Grand Junction Canal.

It had 25 locks with 23 locks rising to meet the Oxford Canal and therefore it needed reservoirs at Napton to compensate for the water drawn off the Oxford Canal. Its commercial operation thereafter mirrored that of the Warwick & Birmingham Canal (see below).

Stockton Locks (IoE 307229 (Helmut Schulenburg)

Elements of considerable significance: Stockton and Bascote Locks

Elements of some significance: Napton Reservoir

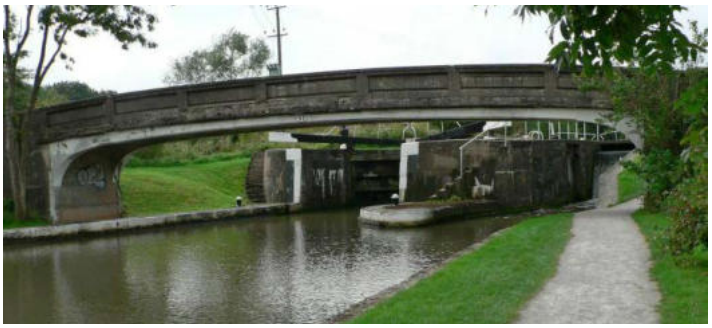
Warwick & Birmingham (23 miles opened 1799)

Heritage Value: 4

Built under an Act of 1793 to a survey by Samuel Bull and engineered by William Felkin and then Philip Hennry Witton, the Warwick & Birmingham Canal connected the Birmingham's Digbeth branch to a wharf at Saltisford in Warwick. It was planned, with the Warwick & Napton Canal, as a part of a through route to the Grand Junction Canal. From Digbeth the line rose by six Camp Hill Locks, to its ten mile summit to Knowle, where there are six falling locks. From there the canal ran through Shrewley Tunnel (433 yards) with its companion horse-path tunnel to the top of Hatton flight of 21 locks and onwards past its junction with the Warwick & Napton Canal to end at Saltisford Wharf, Warwick.

With 33 locks in its relatively short length water supply was always a problem and an engine was installed at Camp Hill in 1796 to pump back even before the whole canal opened in 1799 – the same year as its companion canals. It struggled commercially and both Warwick canals sought amalgamation with the Grand Junction in 1895

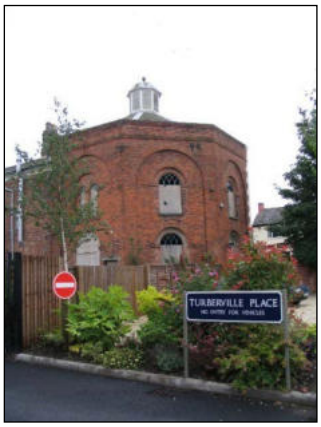
but nothing transpired until they were bought in 1927 by the Regent's canal in preparation for the formation of the Grand Union Canal in 1928.



(Left) Shrewley Tunnel North Portal with horse tunnel alongside (IoE 436126 Helmut Schulenburg): (Above) Hatton Middle Lock showing 20th-century lock and the weired original narrow lock alongside. (www.GrandUnionCanal.co.uk)

Elements of considerable significance: Shrewley Tunnel and horse path, Hatton Locks.

Elements of some significance: Camp Hill depot, Digbeth Branch warehouses, Saltisford Arm; the gasworks at former Saltisford wharf have the earliest gasholder buildings in England.



1822 Gasholder buildings Saltisford Wharf (Geograph Chris Allen and E Gammie)

Birmingham and Warwick Junction Canal
(2.5 miles, 6 locks: opened 1844)

Authorised by an Act of 1844 for a 2.5 mile canal from Salford to Bordesley to link the Warwick & Birmingham to the proposed Tame Valley Canal. Engineered by James Potter it opened on the same day as the Tame valley and was financed and staffed by the two Warwick canals. It was acquired by the GUC in 1927 but the locks were not widened under the GUC's modernisation scheme as it only led to other narrow canals.

Mid 19th century canal engineering. (Wikipedia Row 17)

GUC Main Line Minor Branches and Arms

Aylesbury Arm (6 miles, opened 1815)

Heritage Value: 2

18 Grade II listed buildings.

An extension of Grand Union, the 6 mile long arm branches off at Marsworth with 16 locks and numerous accommodation bridges before it reaches Alyesbury.

A small number of distinctive canal cottages survive while Aylesbury Basin has one old warehouse.

(Left) Lock near Drayton Beauchamp (IoE 42644 Trevor S. Brandon): (Right) Lock Cottage, Drayton Beauchamp. (IoE 42645 Trevor S. Brandon)

Buckingham Arm (10.5 miles, 2 locks, opened 1801)

Heritage Value: 1

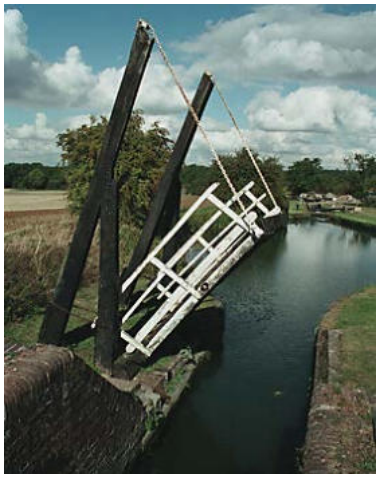
The 10.5 mile Buckingham Arm once ran from Cosgrove, Northamptonshire to Buckingham. It was built as an arm of the Grand Junction Canal, in two separate phases, opening in 1800 and 1801. It was disused from 1932, but was not finally abandoned until 1964. It is now the subject of a restoration project with some short sections re-watered.

(Left) Bridge near Mount Hill Farm 2000 (IoE 235355 Robert Skears)
(Right) Little Farm Bridge restored 2011(Buckingham Canal Society)

Northampton Arm (5 miles, 17 locks, opened 1815)
Heritage Value: 3

17 Grade II listed buildings.

Extension of GUC to Northampton (superseding a tramroad link) with 17 narrow locks.



(Left) Lift Bridge (No. 5) near Rothersthorpe (IoE 234809 A. S. Pirie)
(Right) Top Lock and Cottage (IoE 234803 A. S. Pirie)

Altered early 19th-century cottage at top of flight. 2 rare examples of wooden lift-bridge. Arm joins River Nene via bottom lock. Wharf area at bottom undergoing redevelopment.

Elements of significance: Wooden lift bridge on lock flight, Closely grouped locks on Northampton flight

Slough Branch Slough Arm (5 miles, opened 1882)
Heritage Value 0

Slough Arm near Cowley (Wikipedia Nigel Cox)

The five mile long,lockless Slough Arm is a short branch from the Grand Union Main Line to Slough. It was originally opened to serve the brick-making industry. The last commercial traffic was carried in 1960, but as the plans to fill it in were opposed locally, the stretch was re-opened in 1975 and has remained in use since.

Wendover Arm (Lockless 7 miles navigable feeder, opened 1799)
Heritage Value: 1

The Wendover Arm Canal originally linked the Grand Union Canal at Bulbourne near Star Top End in Hertfordshire to the town of Wendover in Buckinghamshire but was built primarily as a water supply feeder. It is fed by, and feeds, several reservoirs and Tringford Pumping Station still operates. The canal is 6.7 miles long, but has been un-navigable since 1897. It is currently being reconstructed by the Wendover Arm Trust, and Phase 1 of the project, the first 1.3 miles from the junction at Bulbourne, was completed and reopened in 2005. An HLF development grant in 2016 seeks to progress the restoration of a further stretch of the Arm.

(Left) Modern Reinstatement of Little Tring Road bridge was completed in 2001. (Wikipedia Kanguole): (Right) Tringford Pumping Station (IoE 355766 A. Gude)

The Tringford Pumping Station is the largest on the Grand Junction system and was built to fill Tring summit level of canal from reservoirs in 1816-17 at 'spot determined by Mr Telford', with Boulton and Watt steam engine as second pumping station on Wendover feeder arm. It was extended 1836-8 when station adapted as single centralised pumping station with a second steam engine ('York' engine) added. An earlier pumping station at Whitehouses (1802) pumped from Wilstone No. 1 Reservoir but was superseded by Tringford pumping station and was

subsequently demolished. Wilstone Reservoir was heightened in 1811 and 1827 and extended in 1835 (No. 2) and 1839 (No. 3) by which time it had been supplemented by Marsworth Reservoir (1806), Tringford Reservoir (1814), and Startops End Reservoir (1815).

Bridge over Wendover Arm of Grand Union Canal in grounds of Halton House, c.1880 cast iron
(IoE 42654 Alistair F Nisbet)

The Birmingham Main Line connected to the Regents Canal by its Paddington Arm and these two waterways were crucial to its successful commercial operation.

Paddington Arm (13.5 miles, opened 1801)
Heritage Value: 2

The Paddington Branch was authorised in 1795, to run for 13½ miles on the level from the Grand Union Main Line at Bulls Bridge where its entrance is spanned by a roving bridge (1189553), to Paddington Basin. The branch acted as a feeder to the Main Line, supplying water from the River Brent and from reservoirs at Ruislip, Aldenham and Welsh Harp (1835).

The Paddington Branch served local industries – mainly brickfields – along its length and other industrial premises towards its eastern end and basin. There are a couple of early 19th-century cottages close to the Bulls Bridge Junction, which help to define the entrance to the main line, and the junction with the Regent's Canal at Little Venice is a famous site. The Canal Office at Little Venice is historically and architecturally significant. The area around Paddington Basin has recently attracted huge-scale developments which use the canal as an amenity.

(Left) Bulls Bridge Junction (Wikipedia Pepspepper): (Right) Little Venice (Wikipedia charlesdrakew)

Regents Canal (8.6 miles, opened 1820)

Heritage Value: 3

1 Grade II*, 7 Grade II listed buildings

The Regents Canal was authorised by an Act in 1812 and John Nash, the noted architect, developer and a director of the canal company who in 1811 had produced a masterplan for the Prince Regent to redevelop a large area of central north London and incorporated the canal in the scheme.

As with many Nash projects, the detailed design was passed to one of his assistants, in this case James Morgan who was appointed chief engineer of the canal company. Work began on 14 October 1812. The first section from Paddington to Camden Town opened in 1816 and included a 274 yard stretch under Maida Hill and the remainder including the 969 yard long Islington Tunnel opened four years later on 1 August 1820. East of Little Venice and Regent's Parks much of the canal is lined by industrial buildings. Various intermediate basins were also constructed such as Battlebridge in the Kings Cross area and Cumberland Basin to the east of Regent's Park.

Macclesfield Bridge Regent Park was destroyed by an explosion in 1874 when a gunpowder barge blew up. It was rebuilt using the original iron columns. (Shepherd TH. Macclesfield Bridge, Regent's Park, 1823)

(Left) Cumberland Bridge (1227628) a Grade II* cast iron footbridge of 1864, manufactured by Henry Grissell, London (IoE 477804 Steve Kirkland)
(Centre) Hampstead Road Locks and Lock Cottage (IoE 476807 Steve Kirkland)
(Right) Interchange Warehouse, Camden (IoE 477688 Vlasta Rousalova)

Built c 1896 on the site of an earlier warehouse, the Interchange Warehouse (1113238) is one of the most notable canal warehouses in the country. A private canal inlet runs under the building, entered under the Grade II iron towpath bridge (1113238). Railway lines entered the warehouse from the sidings at high level, enabling direct transfer of goods between train and barge.

(Left) West portal of the Islington Tunnel (Wikipedia Mark Hogan):
(Right) Lock keeper's cottage, now the Regent's Canal Information Centre (1244300). Early C19 with additions and alterations c1975. (IoE 476803 Steve Kirkland)

Battlebridge Basin. The basin was constructed in 1820 at the same time as the second half of the canal from Camden to Limehouse though the wharf buildings were not completed until 1822

(Left) Battlebridge Basin (Wikipedia SteveF): (Right) London Canal Museum (Wikipedia Oxyman)

The warehouses now housing the London Canal Museum was constructed between 1862 and 1863 to house ice imported from Norway and there are still two huge ice wells under the building.

The Canal terminates at Limehouse Basin which opened in 1820 and originally covered an area of about 15 acres

Entrance to Limehouse Basin 1823 and entrance lock to Thames 2005. (Wikipedia Pierre Terre)

Hertford Union (1 mile, opened 1830)
Heritage Value: 3
Grade II* 2
Grade II 2

The Hertford Union Canal is a short stretch (c. 1 mile) of canal in East London connecting the Regents Canal to the Lee Navigation. It was opened in 1830 but quickly proved to be a commercial failure. It was acquired by the Regents Canal Company in 1857, and became part of the Grand Union Canal in 1927.

Top Lock 1830 (IoE 206528 Patricia Philpott)

Many of the associated locks, bridges and other features around the canal date from the canal's opening in 1830 and some are listed structures including Old Ford Upper Lock No. 1, with the tail of the lock passing beneath a listed Grade II* cast iron footbridge accessing the park from Parnell Road and its bottom gates have rare cast iron balance beams. One of the adjacent cottages (No 3 Lock Cottages) is also a Grade II listed building.

Grade II* Parnell Road Bridge and Three Colts Bridge 1830, cast iron girder and plate deck. (IoE 206529, 206526 Patricia Philpott)

Leicester Line (66miles, 59 locks, opened 1780/1797/1814)
Heritage Value: 4
1 Scheduled Monument, 2 Grade II*, 56 Grade II listed buildings

The modern GUC Leicester Line is an amalgamation of (Old) Grand Union from Norton Junction to the River Trent via Foxton and the Leicestershire & Northamptonshire Union Canal from Leicester to Debdale Wharf, (later extended to Market Harborough in 1809) and the Loughborough or Soar Navigation. The first to open was the Loughborough Navigation.

Loughborough Navigation (9.5 miles improved by 6 locks, opened 1780)
Heritage Value: 2

Under an Act of 1776 John Smith and William Jessop built 9.5 miles of improved River Soar navigation between the Trent and Loughborough with six broad locks. The line became part of a through route between the Midlands and the south and was immensely profitable in the early 19th century. It remained a partner with other canals in maintaining the competiveness of the through route and was eventually bought by the new Grand Union in 1932. Commercial traffic survived into the 1960s. There was a short tramroad from the basin in Loughborough to a detached 7 mile level canal in Charnwood Forest collectively to be known as the Forest Line.

(Left) Redhill Lock (IoE 441520 Anne French)
(Right) Old Lock River Soar, Kingston on Soar. (IoE 441427 George Weston)

Leicester Navigation (16 miles, 10 broad locks, opened 1794)
Heritage Value: 2

The River Soar was improved by ten broad locks in the 1790s from Loughborough to Leicester by William Jessop and his assistant Christopher Staveley in conjunction with the Wreake Navigation to Melton Mowbray.

Navigation bridge, Barrow on Soar
(Wikipedia Rodw)

Leicestershire & Northamptonshire Union Canal
(17 miles, 25 locks, opened 1797 and 1809)

Heritage Value: 2

Under an Act of 1793 the old Leicestershire & Northamptonshire Union Canal section was engineered by Wm Jessop, John Varley and Christopher Staveley (1793-4) and opened to Bebdale wharf in 1797 some 17 miles and 25 broad locks from Leicester, with a latter branch to Market Harborough in 1809. The canal utilised the River Soar for its first two miles and the most notable feature is the 880 yard Saddington tunnel, opened April 1797.

South Portal, Saddington Tunnel (Wikipedia Ashley Dace)

Market Harborough Arm (6 miles, lock free, opened 1809)

Heritage Value: 1

Authorised by an Act of 1793 as part of the Leicestershire & Northamptonshire Union Canal it was intended to terminate at Northampton but only completed to Market Harborough in 1809. Runs 5.5 miles from Market Harborough to the junction with the Grand Union Leicester Section at Foxton Junction. In 1950 the first IWA National Rally was held at Market Harborough where there is a basin and warehouse.

Basin, Market Harborough (Wikipedia Yohan Euan 04)

The (old) Grand Union (23 miles, 17 locks, opened 1814)

Heritage Value: 4

The (old) Grand Union, built under an Act of 1810 by Benjamin Bevan using a line surveyed by James Barnes in 1808, connected the LNU and Grand Junction canals. Opened in 1814. it was 23 miles long with flights of locks at either end of a 20 mile summit level which had tunnels at Crick (1076426) opened in 1814 and 1528 yards

long and Husband's Bosworth 1170 yards long. Water is supplied from reservoirs at Welford, Naseby and Sulby via the navigable Welford Arm.

The staircase locks at Watford and especially at Foxton are historically and architecturally very significant: the Foxton (1360753) formation of two staircase flights separated by a short pound is unique. Foxton Inclined Plane (1018832) (engineer Gordon Thomas) is of international importance and together with the locks, cottages and associated buildings, forms a canal site of very high archaeological and heritage value.

North portal Crick Tunnel (IoE 361015 Roger Ashley)

Foxton locks (Wikipedia Kev747)

Foxton Incline (Wikipedia Yohan eaun o4 and Popular Mechanics Vol. VII No. 10, October 1905)

Welford Arm (old Grand Union Canal) (opened 1814)

Heritage Value: 1

The mile-long Welford Arm was originally built as a navigable feeder to link Welford Reservoir and Sulby Reservoir with the (old) Grand Union Canal. The wharf at the end of the canal served the needs of the local industry and lime from nearby towns was bought in to be burnt in the kilns alongside the wharf. When trade stopped the canal fell into decline and ceased to be used for navigation. Following years of neglect the Welford Arm was re-opened to navigation in 1969.

Welford Marina (Wikipedia Yohan euan o4)

Main References:

1972	Faulkner, A.	*The Grand Junction Canal*	D & C
1972	Stevens, P.A.,	*The Leicester Line*	D & C
1979	Hadfield, C, & Skempton, A.W.	*William Jessop, engineer*	D & C
1996	Blagrove, D.	*At the Heart of the Waterways*	Buchebroc Press
1992	Stevens, P.A.,	*The Leicester and Melton Mowbray Navigations*	Alan Sutton
2005	Blagrove, D.	*Two Centuries of Service*	Buchebroc Press
2009	Wilson, I.J.	*Grand Union Canal*	History Press

Websites: Wikipedia

www.granduniooncanal.co.uk contains some 40 photo galleries illustrating the various sections and branches.

Waterway:	**Grand Western Canal**
Status:	Partly open, partly abandoned and in-filled
Overall Heritage Value:	4
Owner/operator:	(watered) Devon CC (derelict) various
Line: Taunton to Tiverton	11miles broad canal, 14 miles tub boat
Date of opening:	1814 broad, 1838 tub boat
Closed:	1867 tub-boat, 1962 broad
Statutory designations:	Grade II 18

Summary Description and History:

Originally planned and authorised in 1796 to link the Bristol and English Channels the Grand Western Canal when finally constructed only served the Tiverton area via Taunton. It was built in two phases – the first, an 11 mile broad, lockless canal designed by John Rennie from Tiverton to Lowdwells opened in 1814 and was capable of carrying broad-beam barges, carrying up to 40 tons. The second phase was a tub-boat canal suitable for tub-boats about 20 feet (6.1 m) long and capable of carrying eight tons, designed by James Green in 1830 with seven lifts and an inclined plane. Constructional problems delayed completion of this 14-mile section until 1838, Green having been dismissed and replaced by Capt. Twisden in 1836.

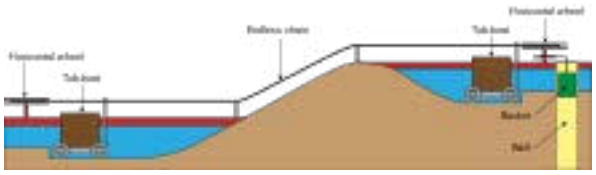
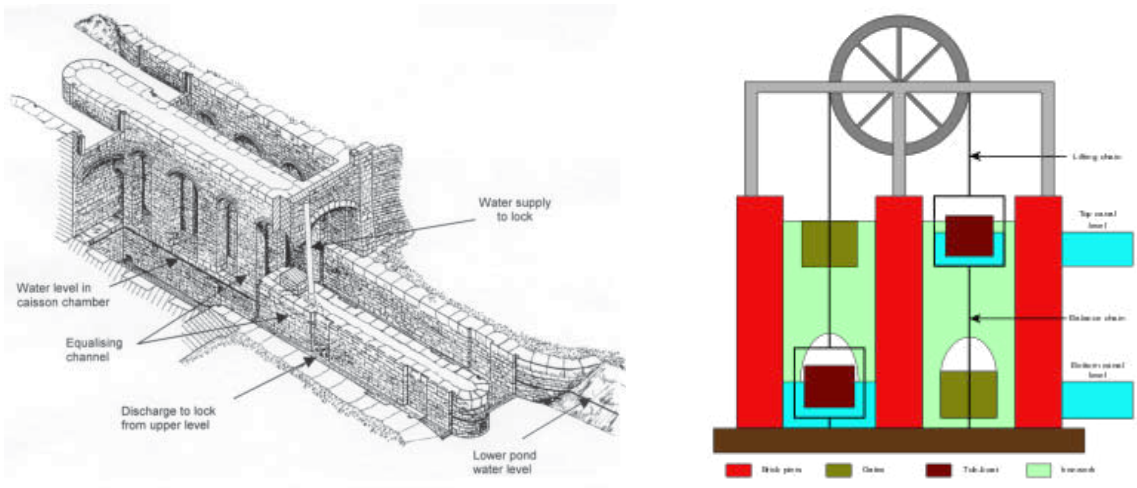


Diagram showing the arrangement of the Wellisford inclined plane (Wikipedia Fred the Oyster)

The inclined plane at Wellisford was 440 feet long and had an 81 feet rise with an endless chain operated by a bucket-in- the-well principle. On the advice of W A Provis the largest lift, that at Greenham, was altered from bucket-in-the-well operation to steam power. The lifts and their rises were as follows: Taunton (25.5 ft), Norton Fitzwarren (12.5ft), Allerford (19 ft), Trefusis (38.5 ft), Nynehead (24 ft), Winsbeer (18 ft) and Greenham (42 ft).


Water supply to lock
Water level in caisson chamber
Equalising channel
Discharge to lock from upper level
Lower pond water level

Conjectural view of Nynehead Lift (Denis Dodd)

Nynehead Lift (Wikipedia NH Savage)

The canal operated profitably for a few years but in the face of railway completion trade declined and the canal was leased and then sold to the Bristol & Exeter Railway in 1865 and the Somerset tub–boat section was closed in 1867, the lifts dismantled and most of the route sold back to the original landowners. Trade declined on the remainder of the canal in the 20th century and ownership passed to the British Transport Commission in 1948 and it was formally closed in 1962 and ownership passed to British Waterways in 1964.

A campaign against in-filling the canal resulted in ownership being transferred to Devon County Council in 1971. The canal was designated as a country park and the Grand Western Canal Trust, the Waterway Recovery Group and the Country Park Ranger Service have worked together to restore many of the historic structures. The local land-owners have also employed DEFRA funding to repair designated structures such as the Nynehead Lift and Aqueduct.

Statement of Significance:

Both sections of the Grand Western Canal are of considerable interest. The broad-boat section is an example of a heavily engineered contour canal by a prominent engineer – John Rennie, while the tub-boat section was the only canal where lifts were used commercially for a number of years. Nynehead,(1177043) the best preserved lift chamber, is listed and is a significant site while the site of the larger Greenham Lift should be investigated as it was reputedly built to the principles advocated by Dr. Anderson as early as 1796. The two sections contain 26 listed buildings including 15 bridges, 4 houses and a warehouse, 2 aqueducts, a lift, a tunnel, a culvert and limekilns.

Many of Rennie's original structures are protected by Grade II listing, including the Tiverton Basin and Waytown limekiln complexes (1140142),15 road bridges over the canal and the 40m long Waytown Tunnel.

On the abandoned section two aqueducts are designated (1307612 and (1060354). The latter though built of masonry had troughs of cast iron plates.

Elements of considerable significance: Tiverton basin and limekilns, Nynehead boat-lift, River Tone Aqueduct, Nynehead Aqueduct.

(Left) The bank of limekilns at Waytown. (Wikipedia Martin Bodman)
(Centre) Remains of the aqueduct over the River Tone. The cast iron trough on the right carried the canal and the tow path was to the left. (Wikpedia, NH Savage)
(Right) Aqueduct at Nynehead Court (Wikpedia, NH Savage)

Elements of some significance: Other notable structures include Trefusis Lift, site of Greenham Lift, milestones, culverts, wharves, accommodation bridges, Waytown Tunnel(1325913) and a lock.

Main References:

2006 Dodd, D. 'The Boat Lifts of the Grand Western Canal' *RCHS Jnl* vol 35 No 194 pp 286-93.

1838 Green, J. 'Description of the Perpendicular Lifts for passing Boats from one Level of Canal to another, as erected on the Grand Western Canal' *Transactions, Institution of Civil Engineers*, 1838, II 185–91

1996 Harris, H. *The Grand Western Canal* Devon Books

1971 Russell, R. *Lost Canals of England and Wales* David & Charles

Websites: Wikipedia Devon County Council

Waterway:	**Grantham Canal**	
Status:	CRT disused but parts restored	
Overall Heritage Value:	3	
Owner/operator:	CRT	
Line:		
Grantham to Trent at West Bridgford		33 miles
Date of opening:	1797	Closed 1936
Statutory designations:	Grade II	20

Summary Description and History:

Under an Act of 1793 building work on the canal started in 1793, with Jessop in overall charge, but with James Green and William King as resident engineers. The eastern section from the Leicestershire border was opened on 1 February 1797, with the rest of the canal later that year. The canal was built with 18 locks 75 by 14 feet (22.9 by 4.3 m), the same size as those on the Nottingham Canal. Conceived during the 'Canal Mania' years at the end of the 18th century, the canal was a profitable enterprise up until the arrival of the railways in the 1850s. A gradual decline in traffic led to the canal being abandoned by the London & North Eastern Railway, its then owners, in 1936.

(Left) Lock 15 in the Woolsthorpe flight before recent restoration (copyright Grantham Canal Society)
(Right) The restored Lock 7 at Cotgrave (Grantham Canal Society)

Classified as a remainder waterway in 1968 much of the canal remained in water due to agreements for irrigating agriculture, although a section at Cropwell Bishop was allowed to dry out. The rural route of the canal meant that it escaped infilling, though a railway embankment was built across the canal at Woolthorpe in the 1950s and has had to be excavated. Many hump-backed bridges were replaced with flat bridges over the years, and this has also created an obstacle to navigation. The Grantham Canal Society with the IWA's WRG and CRT, is working on ways to restore the canal for boats, while preserving it as a space for nature.

A stretch of canal from Woolsthorpe to the A1 near Grantham is now once again navigable and the Society with assistance from the WRG and CRT were awarded £830,500 late in 2014 by the HLF to restore Locks 14 and 15 near Woolsthorpe. These locks, and the next two locks which may be restored in due course, were designed by Jessop and retain many original features. Lock 7 at Cotgrave is one

of two locks which were restored out of funding from 'Mining Regeneration' when Cotgrave Colliery was closed.

Statement of Significance:

Most of the historic buildings and structures are red/dun coloured brick. Two canal cottages survive and several accommodation bridges (mainly at eastern end). The Knipton (1796) and Denton (1799) Reservoirs are two of the earliest belonging to CRT; they have dams 12 metres and 8 metres high respectively. At Hickling a village basin and wharf survives with one small warehouse (1235817).

The canal is slowly undergoing restoration. Denton (1360315), Clarks (1235901) and Vincents (1236719) bridges, River Smite aqueduct (1265243) and fourteen mileposts are Grade II.

Wharf Warehouse (IoE 425604 Mike W. Hallett):

River Smite Aqueduct (IoE 425586 James Brown)

Elements of considerable significance: Knipton (1796) and Denton (1799) reservoirs.

Elements of some significance: Hickling Wharf and village location with associated public house and building. Numerous bridges, locks and mileposts.

Main References: **BR/P-T/RR/RE**

no date Henthorn Brown, D. 'Canal reservoirs in Great Britain' *Proceedings of the Institution of Civil Engineers – Engineering History and Heritage* Volume 162 Issue 2

Websites: CRT Wikipedia Grantham Canal Society Website

Waterway:	**Gresley's, the Newcastle and Newcastle-under-Lyme Junction Canals**

Status:	Abandoned and in-filled
Overall Heritage Value:	0
Owner/operator:	various
Line:	
Gresley's Apedale Collieries to Newcastle	3 miles
Newcastle-under-Lyme Canal to Trent & Mersey	4 miles
Newcastle-under-Lyme Junction from Gresley's to Stubb Walks	1 mile
Date of opening:	Gresley's 1776
	N-U-L 1800
	N-U-L Junction c. 1800
Closed:	Gresley's Canal 1857
	Junction canal by 1864,
	Newcastle canal part closed 1921 abandoned 1935.
Statutory designations:	none

Summary Description and History:

The Newcastle Canal went into two tunnels – one into the Wolfe Street pottery works and one under Stoke town centre and on to the Trent and Mersey Canal.

There were three small canals built in the Newcastle-under-Lyme area. The first was the Newcastle Upper Canal (otherwise known as Gresley's Canal) was privately promoted and was around three miles long, built around 1776 and served to bring coal from Gresley's mines at Apedale to Newcastle. It had a 42 year monopoly of coal prices in Newcastle-Under-Lyme

The second was authorised in 1795 and competed about 1800, known as the Newcastle-under-Lyme Canal was built to join Newcastle to the Trent and Mersey Canal in Stoke. It ran for about four miles along the Lyme Valley and then Oakhill and Boothen into Stoke. It part closed in 1921 and was abandoned in 1935. and subsequently filled in.

In 1798 a junction canal was authorised. This canal was built, it had a junction with the Upper Canal. The termination of the Junction Canal was about 60 feet higher than the Lyme Valley where the Newcastle to Stoke canal ran, a short inclined railway was originally planned to join the two. In the end lack of funds meant that this was not built and there was only road connection between the canals.

These small canals serving owners' collieries and local businesses had no locks or major engineering features. The Junction Canal sold out to railways 1851and closed about 1861, Gresley's Canal was replaced by a railway branch c. 1856/7 and the Newcastle Canal when abandoned in 1935 was filled in.

Statement of Significance:

Nothing of significance survives though sections of the lines can be traced on the ground.

Elements of considerable significance: none

Elements of some significance: none

Main References: BR RR/RE

Websites: Wikipedia

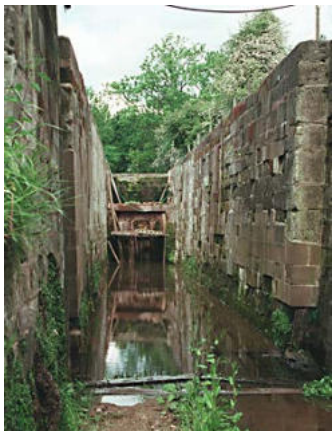
Waterway: **Hereford & Gloucester Canal**

Status	Abandoned and partly converted to railway
Overall Heritage Value:	2
Owner/operator	various
Line	River Severn at Over to Hereford 34 miles
Date of opening:	1798 to Ledbury 16 miles
	1845 Hereford 18 miles
Statutory designations:	Grade II 2

Summary Description and History:

Authorised in 1791 and engineered by Clowes and then Whitworth the canal was built in two phases with the section from the Severn to Ledbury, involving 13 locks and the Oxenhall Tunnel, completed by 1798.

Under a new Act of 1839 work started again thus it took 45 years before the canal was completed to Hereford – its originally proposed destination. This section required a further 10 locks and another tunnel.



(Left) House Lock (1248345) before restoration (IoE 429926 Brian F. Squires): (Right) 1840 Skew Bridge at Monkhide (Wikipedia Bob Embleton)

The canal, which cost several times the original estimate, was never prosperous and was leased to the GWR in 1872 with a view to converting it to a railway. This did not take place immediately, but on 30 June 1881, half of the canal was closed, and sections of it were used for the course of the Ledbury & Gloucester Railway. The Canal Company continued to receive rent from the Great Western Railway, which it distributed to its shareholders as dividends, and was not formally wound up until the railways were nationalised in 1948.

In 1983 a canal society was formed to preserve what remained of the canal but in 1992 it became the H & G Canal Trust with the aim of the full restoration of the 34 miles of canal from Ledbury to the Severn. In 2000 the Over Basin was

reconstructed by the Trust and the WRG and in 2012 a section of canal above the basin re-watered.

The restored basin at Over (Wikipedia Pauline Eccles)

Some restoration has also been completed at the Ledbury end. The Wharf House at Over is the Herefordshire & Gloucestershire Canal Trust's new visitor centre with catering facilities. The section at Oxenhall has been partially restored and is of particular interest, featuring a tunnel, a length of branch canal, a series of locks including House Lock which has been restored , an original and unaltered lock keepers cottage (1248345) and an aqueduct. The Herefordshire & Gloucestershire Canal Trust was awarded the Queens Award for Voluntary Service in 2016 for its efforts in restoring sections of the canal.

Statement of Significance:

There are numerous surviving locks and over-bridges, some of the latter dating from the 1840s are very much railway era structures eg the skew bridge at Monkhide (1349186) which is Listed Grade ll.

Elements of considerable significance: none

Elements of some significance: bridges, tunnels, aqueducts, locks and lock-keepers houses

Main References: **P-T/RR/RE**

1979 Bick, D. *The Hereford & Gloucester Canal* Newent

2008 Squires, R. *Britain's Restored Canals* Landmark Publishing

Websites **Wikipedia** **Herefordshire & Gloucestershire Canal Trust**

Waterway: **Horncastle Canal**

Status: Abandoned
Overall Heritage Value: 1
Owner/operator: various
Line: Horncastle to Tattershall on River Witham 11 miles
Date of opening: 1802
Abandoned: 1889
Statutory designations: none

Summary Description and History:

The Horncastle Canal was built under an Act of 1792 and took over Gibson Cut , the one mile long, privately built, canal and lock at Tattershall constructed in 1786 by John Gibson, a merchant from Tattershall.

The weir and gauging station and remains of Gibsons Cut near its junction with the Dogdyke branch at Tattershall (Wikipedia, Bob1960evens)

Various engineers were involved including Jessop and Rennie in advisory capacities and the canal with its 12 broad locks took ten years to complete. Though it cost more than four times its original estimate it was reasonably prosperous in the mid-19th century but trade declined thereafter in face of railway completion the last dividend being paid in 1873. Though it was officially abandoned in 1889 some traffic remained until 1910. There are plans by the IWA and Lincolnshire CC to eventually restore the canal.

Statement of Significance:

The locks are mostly weired but retain some of their original fabric

Elements of considerable significance: none

Elements of some significance: Horncastle basin and buildings, weired locks

Main References:

1990 Clarke, J.N. *The Horncastle and Tattershall Canal* Oakwood Press

Websites: Wikipedia

Waterway: **Huddersfield Broad Canal**
(Sir John Ramsden's Canal)

Status:	CRT cruiseway
Overall Heritage Value:	4
Owner/operator	CRT
Line: Calder & Hebble to Huddersfield	3.75 miles
Date of opening:	1776
Statutory designations:	see Calder & Hebble Navigation

Summary Description and History:

The three mile long canal, built under an Act of 1774 by Sir John Ramsden who gave his name to this branch off the Calder & Hebble, has nine broad locks and makes connection with the Huddersfield Narrow canal at Aspley Basin in Huddersfield.

The line was surveyed by Robert Whitworth in 1766 and again in 1773 by Luke Holt and although it became part of a trans-Pennine route when the narrow Huddersfield canal opened in 1811 it owed much of its prosperity to traffic on the Calder & Hebble.

(Left) Aspley Basin Junction of Broad and Narrow Huddersfield canals (Wikipedia Richard Harvey)
(Right) Cooper Bridge Lock (IoE 339639 Roy Henstock)

The canal passed into railway ownership in 1845, but continued to prosper into the 20th century. Railway ownership ceased in 1945, when it was bought by the Calder and Hebble Navigation, at which point the narrow canal over the Pennines was abandoned. It continued to carry commercial traffic, particularly coal for power stations, until 1953.

Statement of Significance:

The canal is characterised by a number of historic stone bridges, brick and stone (broad) locks and several stone built warehouses at its terminus in Aspley Basin. There is a stone cottage at Lock no 1.

(Left) Warehouse near Aspley Basin (IoE 339489 Tim Belcher): (Right) 1780 Grade II* Warehouse, Aspley Basin (IoE 419740 John Turner)

Turn Bridge, Huddersfield (Wikipedia Richard Harvey)

The Turn Bridge(1005793) c1865 is a unique although altered survivor of a vertically rising deck type bridge, originally wound up and down by hand and counter balanced by means of an overhead chain and wheel mechanism. It was refurbished in 2002 and converted to electric power.

Elements of considerable significance: Turn Bridge, Quay Street, Huddersfield Wakefield Road Warehouse (1223867) Aspley Basin

Elements of some significance: Numerous locks and bridges are Listed. North End Warehouse Aspley basin

Main References: BR/P-T/RE

Websites: CRT Wikipedia Pennine Waterways

Waterway: **Huddersfield Narrow Canal**

Status:	CRT cruiseway	
Overall Heritage Value:	4	
Owner/operator:	CRT	
Line Huddersfield to Ashton Canal (Lancs)		20 miles
Date of opening:	1811	
Statutory designations:	Grade II*	1
	Grade II	44

Summary Description and History:

Nicholas Brown surveyed this narrow trans-Pennine canal in 1793 to inform the Act of 1794. It is the highest canal with the longest tunnel (Standedge) in England. Benjamin Outram was engineer from 1794, followed by John Rooth, who took over in 1801. Also John Raistrick took over in 1819. The contractors were Edward Banks and contractors for Standedge Tunnel include John Varley (1801), Thomas Lee (1794-1801) and Jonathan Woodhouse. In addition to Standedge there were two other tunnels, 74 narrow locks, 5 aqueducts (the one at Stalybridge being partly of iron) and as water supply was a problem the canal is fed by 10 reservoirs on the moors above Standedge. CRT now manages nine reservoirs dating from1797 (Slaithwaite) to 1848 (Brunclough)

East Portal Standedge Tunnel (Wikipedia Chris Wood) (Right) Lock 1E Huddersfield (Wikipedia Richard Harvey)

The Huddersfield Narrow Canal was built for 70ft-long narrowboats, while the Huddersfield Broad accommodated wider 57ft x 14ft craft, as used on the Calder & Hebble. Goods therefore had to be transhipped between the two at Huddersfield. This enforced double handling increased costs to unacceptable levels that were made the more so by the arrival of the Huddersfield & Manchester Railway. The canal was purchased by the railway, soon to become the London & North Western Railway, in 1844, and was used to help construct the new railway tunnel at Standedge. The canal and railway tunnels are connected by short shafts. Decline inevitably followed, and by the early 20th century, there was little traffic.

The line was abandoned in 1944 but was retained as a water channel. In 1948, a party of Inland Waterways Association pioneers – among them Tom Rolt and Robert

Aickman – took the boat *Ailsa Craig* from end to end. Their documented journey was to prove the last through the Standedge Tunnel for more than 50 years – but following a major restoration programme, the route is now once again open throughout.

Transhipment Warehouse Dobcross, home to Huddersfield Canal Society (www.penninewaterways.co.uk)

Statement of Significance:

The Huddersfield Canal takes a prominent place in the history of the canal restoration movement as the eventful success in overcoming such serious obstacles inspired many further restoration campaigns.

Standedge Tunnel when it was being driven required an engine house to drain the workings and the building high up on the moor above Red brook encloses the engine pit and bye pit, which were used to drain and work the central part of the tunnel. The engine used was a 70-inch Newcomen engine.

(Left) Engine House Red Brook (IoE 420021 Nigel Wood): (Right) Stakes Aqueduct, 1799, Stalybridge (Wikipedia Bob Gough)

The canal itself has many good stone bridges and locks, constructed from local gritstone, but few cottages or ancillary buildings. The Dingle Subway beneath the canal at lock 30W has a stone-setted footpath the length of tunnel. and at the southern end, a right-handed integral wingwall, continues alongside the footpath for several yards. In addition to the Standedge Tunnel it has other structures of great significance including the Stakes Aqueduct rebuilt by Outram in 1799 with a cast iron span after being damaged by a flood. Though strengthened by cross bracing in 1875, it is the oldest surviving aqueduct of its type that is still in use for its original purpose.

Elements of considerable significance: Standedge Tunnel (1266901 and 1266901) and the Engine House (1224052) above and group of buildings and reservoir structures at Marsden, Stake Aqueduct (1356465), Aqueduct No. 84 (1067432)

Elements of some significance: Formations of stone locks and bridges, Scout Tunnel (1162961 and 1309457) Saddleworth Aqueduct (canalside warehouses on urban lengths (eg 1220248) Dingle Subway

Dingle Subway (IoE 436760 Pamela Jackson)

(Left) Scout Tunnel (www.penninewaterways.co.uk)
(Right) Saddleworth Aqueduct over River tame (www.penninewaterways.co.uk)

CRT reservoirs: Slaithwaite (1797) Tunnel End (1798), Swellands (1810), Sparth (1810), Redbrook (1815), Diggle (1830), Black Moss (1835), March Haigh (1838), Brunclough (1848).

Main References: **BR/P-T/RE**

2002 Gibson, K. *Pennine Dreams: the story of the Huddersfield Narrow Canal*

Websites: CRT Wikipedia

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Historic England website – Detailed historical record about Huddersfield Narrow Canal

Waterway: **Ipswich & Stowmarket Navigation**

Status:	Abandoned navigation partly restored	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line	Ipswich to Stowmarket	16 miles
Date of opening:	1793	
Statutory designations:	Grade II	4

Summary Description and History:

There is evidence that the River Gipping was used for navigation in the thirteenth and seventeenth centuries, however, in 1790 an Act was obtained to enable the river to be improved from Ipswich to Stowmarket. This was achieved by building 15 broad locks and the river was then known as the Ipswich and Stowmarket Navigation, although the name has now fallen out of use. Despite problems with engineers and contractors the navigation, aided by advice from Rennie, was opened in 1793, and the enterprise appears to have been profitable.

In the 1840s, as railways arrived in the area, the Trustees negotiated with the Eastern Union Railway and the navigation was leased to them for 42 years. At the end of the lease, it was in a poor state, despite the fact that the railway had a legal duty to maintain it. Traffic to Stowmarket did not recover, but there was some traffic through the lower four locks, with barges serving the Fison's and Packard's fertiliser factories.

(Left) Creeting Bridge and Lock 1999 (IoE 437909 B.A. Curtis): (Right) Handford Sea Lock. (Wikipedia, Bob Jones)

By 1917, it was no longer economical to keep it open, and it closed in 1922, although a formal closing order was not obtained until the early 1930s and the waterway gradually fell into decay. In the wake of a report entitled Upgrading of remainder waterways by the Inland Waterways Amenity Advisory Council the Inland Waterways Association began to take an active role in the improvement of the River

Gipping and members of the IWA worked on the reconstruction of first Bosmere and then Creeting locks. Subsequently, further work has been carried out at Baylham lock and at Pipps Ford to restore a bridge over the tail of the lock and the river channel around the lock. In 2007, the Inland Waterways Association decided that it would be better to set up a separate organisation to manage restoration of the navigation, and the River Gipping Trust was formed in May of that year. The River Gipping Trust with the IWA have undertaken some restoration and several of the lock chambers have been restored, while the Gipping Valley River Path had been established along the towpath. A weir has replaced the gates at Handford Sea Lock.

Statement of Significance:

There are many Listed historic buildings along the course of the river, including some of the locks and bridges such as the two at Baylham Mill (1181881), and Creeting (1261325) several of the other mill buildings, and Fison's fertiliser warehouse at Bramford (1263014).

(Left) Bosmere Mill and restored lock (Wikipedia Andrew Hill): (Right) Fison's Warehouse 1858 (Wikipedia Nigel Chadwick)

Elements of considerable significance: none

Elements of some significance: locks and bridges and mills

Main References: **BR/P-T**

Websites: Wikipedia

Waterway: **River Itchen**

Status:	abandoned navigation	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line: Winchester to Woodmill tide-lock		10.5 miles
Date of opening:	1710	
Statutory designations:	Grade II	1

Summary Description and History:

The Itchen had been used in medieval times as a waterway but was so decayed that an Act of 1664-5 was needed to make improvements. These were slowly completed and by 1795 comprised 15 pound locks, 12 of them turf-sided and two half locks and almost three miles of new cuts.

The last tolls were taken in 1869 and the navigation reverted to a river and is a noted fly fishing stream. In the 1970s weirs were constructed at most of the locks by the Southern Water Authority and in 2005 the Itchen Navigation Trust was form to conserve the remains of the navigation though not to restore it to a navigable standard. The navigation has been designated a European Special Area of Conservation as well as a Site of Special Scientific Interest, due to the rich diversity of wildlife found along the system, and its historical importance. The HLF funded the Itchen Navigation Heritage Trail Project which has conserved the line of the navigation for interpretation.

(Left) The 'Weirs' in Winchester (Wikipedia Chris Wood): (Right) St Catherines Lock waterwheel site (The Itchen Navigation Heritage Trail Project)

Statement of Significance:

The fabric of some of the locks seems to be early these remains might be investigated and considered for designation. Remedial work has been undertaken on some already. Some bridges over the River Itchen above Winchester are designated but nothing on the navigable section.

Elements of considerable significance: none

Elements of some significance: remains of weired locks.

The disused Stoke lock, which now functions as a weir and sluice (Wikipedia Pedro)

Main References: **P-T/RE**

1990 Vine, P.A.L. *Hampshire Waterways* Middleton Press

2005 Wessex Archaeology (April 2005) *Itchen Navigation Heritage Trail.* Hampshire and Isle of Wight Wildlife Trust

2011 Course, E. *The Itchen Navigation* Hampshire Industrial Archaeology Society.

2014 Wood, A. *Abandoned & Vanished Canals of England* Amberley

Websites: Wikipedia

Web pamphlet 2012 Itchen Navigation Heritage Trail. Hampshire and Isle of Wight Wildlife Trust.

Waterway:	**River Ivel and Shefford Canal**	
Status	abandoned navigation	
Overall Heritage Value:	1	
Owner/operator	EA?	
Line:	Temsford to Biggleswade	8 miles,
	to Shefford	further 4 miles
Date of opening:	to Biggleswade 1758	
	to Shefford 1823	
Statutory designations:	none?	

Summary Description and History:

The River Ivel Navigation was a product of the first great 'Canal Age' of the mid 18th century. The first proposal to make the river navigable was made in 1755, and in 1757 a Parliamentary licence was granted for a scheme covering the river from Tempsford to Biggleswade. This first system of four brick-lined locks augmented by a fifth lock at Biggleswade North, lined with turf, covered 8 miles, and was opened in 1758. Several subsequent plans to link the River Ivel Navigation with other regional waterways came to naught until 1821, when a controversial extension from Biggleswade to Shefford on a tributary of the Ivel, was begun. This was finished in 1823 (at a considerable cost overrun), and added 5 locks over only 5 miles.

The navigation proved profitable until the coming of the railways when the navigation gradually fell into disuse. By 1870 trade on the canal ceased and the locks were soon sold to local mills to pay off company debts. Interest in the waterway revived in the 1960s but little has transpired and about half the locks have been in-filled or demolished.

Statement of Significance:

Some of the locks have been converted into sluices with Holme Lock probably the best preserved on the whole navigation with a guillotine gate installed at its head to hold up the water level. This lock is possibly unique as a pedestal bearing a weather-worn head stands beside the chamber; it is believed to have been put there by Italians prisoners of war.

Holme Lock near Broom (Visit Shefford)

Elements of considerable significance: none

Elements of some significance: remains of locks including Holme Lock

Main References: P-T/RE

Websites: East Anglian Waterways Association British Express

Waterway: **Kennet & Avon Canal**

Status:	CRT waterway	
Overall Heritage Value:	5	
Owner/operator:	CRT	
Line:	Bristol to Bath	11.5 miles
	to Newbury	+57 miles
	to Reading	+18.5 miles
	Total	87 miles
Date of opening:	Avon Navigation	1727
	K & A Canal	1810
	Kennet Navigation	1724
Statutory designations 2014:		
	Scheduled Monument	6
	Grade I	2
	Grade II*	8
	Grade II	74

Scheduled Monuments:

Monkey Marsh Lock (1006971)
Sheffield Lock (1006972) (also listed)
Aldermaston Lock (1006970) (also listed)
Dundas Aqueduct (1005631) (also listed Grade I)
Caen Hill Flight Locks 28-44 (1004694) - Devizes
Muirhill tramway and wharf (1004693)

Listed Building Grade I Dundas Aqueduct, Crofton Pumping Station (part)

Listed Building Grade II* 2 tunnels and 2 foot bridges in Sydney Gardens, Avoncliff Aqueduct, Crofton Chimney, Garston Lock, Cleveland House

Architectural Heritage Survey Kennet & Avon: 607 entries

Heritage at Risk – LA Register Semington Aqueduct Grade II

Summary Description and History:

The Kennet & Avon Canal is bracketed by the Rivers Avon and Kennet navigations and together they provided the southernmost inland water route between he Severn Estuary, Bristol and London. John Hore improved the Avon from Bristol to Bath with six locks by 1727 and under an Act of 1715 the Kennet from Newbury to Reading by 1724 with 20 turf-sided locks.

The Kennet and Avon Canal. The route of the canal, between Newbury and Bath, is in red.(Wikipedia)

Weston Lock (c.1727), River Avon, Bath (Keith Falconer)

Saltford Lock and Weir, River Avon (Keith Falconer)

(Left) Netham Lock, Bristol (IoE 379567 Ruth Povey): (Right) Tunnel and Cleveland House, Sydney Gardens, Bath (IoE 442751 Micaela Basford)

Under an Act of 1794 John Rennie engineered the canal itself with 79 locks and it wasn't completed until 1810 when the canal company assumed responsibility for the whole line up to William Jessop's lock at the Netham entrance to the feeder canal to Bristol's Floating harbour.

When completed it provided a magnificently engineered route with superb aqueducts, graceful iron bridges, engineered swing bridges, a handsome Company Office, Cleveland House, straddling a tunnel in Bath, state-of-the-art pumping installations at Claverton and Crofton and majestic flight of 16 locks at Caen Hill, part of the flight of 29 locks at Devizes.

(Left) 1810 Iron Bridge Sydney Gardens, Bath (IoE 442753 Michael Perry)
(Right)Dundas Aqueduct over the River Avon, Monkton Combe (CRT)

(Left) Avoncliff Aqueduct near Bradford-on-Avon (CRT)
(Right) Caen Hill Locks (Wikipedia Adrian Pingstone)

The canal linked with the Somerset Coal Canal, the Wilts & Berks Canal and from1827 with the Avon & Gloucestershire Railway, a coal tramway, and was prosperous for a time.

Stop Lock between Kennet &
Avon and Somerset Coal Canals
(K Falconer)

Railway competition from the GWR seriously affected traffic and the GWR took over the canal in 1852 and there was no profit from the canal after 1877. Some commercial traffic continued into the 20th century but ceased after the Second World War. The preservation lobby fought successfully against official abandonment and the subsequent restoration though very expensive has ensured that one of the country's finest canals is intact.

Statement of Significance:

John Rennie's Kennet & Avon Canal from the heritage viewpoint is arguably the finest canal in England and was well worthy of the intense campaign to counter closure and battle for its restoration. Most of the significant canal features have survived and are well protected. The water-driven pumping station at Claverton (1214608) and the steam-driven pumping station at Crofton (1034049) have been returned to use by preservation trusts.

(Left) Claverton Pump House (Keith Falconer)
(Right) Crofton Pumping Station (IoE 310817 B.J.W. Heath)

The major casualties of restoration in the 1970s were the few remaining turf-sided locks on the Kennet section. Most have been modernised in the two restorations from the 1970s onwards though a couple still retain their original formation and are scheduled albeit with wooden members replaced by metal. The lock at Aldermaston had scalloped brick walls which have been retained in the restoration.

(Left) Aldermaston Lock (IoE 39700 Richard Swynford-Lain)
(Right) Saltford lock, weir and Kelston Brassworks (Keith Falconer)

The section west of Bath comprising the former Avon navigation has some exceptionally old structures reputedly dating from the early 18th century. The bridge and lock at Weston would appear to date from the 1728 opening of the improved navigation while the two downstream locks at Saltford with their impressive weirs and the lock at Keynsham are also early but the Hanham and Swineford Locks would seem not to be designated. The eastern stretch of Kennet & Avon was the focus of early tramroads with wharfs of the Murhill Tramway near Winsley (1004693) and the Londonderry and Avonside wharves, near Bitton, the termini wharves of the Avon and Gloucester Tramway opened 1835 (1116799). The listed

weigh-houses at these wharves are some distance from the river and are properly considered as part of the Tramway and not the navigation. Cuts off the river at many of these locks supplied water power to brass and copper mills several of which have designated remains.

The group of structures and buildings in Bath in purely architectural terms forms the best on any canal in UK and lie within the World Heritage Site of Bath – classical tunnel portals, Cleveland House (1395310) the former canal headquarters, stone bridges, locks and cottages, remains of 2 pumping stations. The Sydney Gardens length is superb and its two iron bridges (1395952 and 1395961)are Grade II*. Moving eastwards there are great classical stone aqueducts at Dundas and Avoncliff (1021876) and historic, working pumping stations at Claverton and Crofton.

Caen Hill flight of 16 locks, Devizes is part of a great and unique formation of 29 concentrated locks and side ponds: reputedly the best designed lock flight in the UK.

Canal Museum Devizes (Wikipedia Rod Ward)

Bruce Tunnel (1035927 and 1194523) has an exceptionally large bore and its brickwork is in excellent condition for its age. Its eastern portal has a large, inscribed stone panel.

(Left) East Portal Bruce tunnel, Burbage (IoE 312259 B.J.W. Heath)
(Right) Garston Lock (IoE 40058 Mary Auckland)

Many accommodation bridges in brick or stone. World War II defences are another feature.

Garston Lock, (1117125 Grade II*) the last working turf-sided lock in the UK is a unique survivor. A small number of single storey stone cottages survive at the western end of the canal and there is an assortment of cottages moving eastwards, some less altered than others and the best having good group value with locks and bridges.

The Claverton Pump is at present listed Grade II but despite its modest external appearance it contains early 19th century state-of-the-art pumping equipment and has been recognised as a monument of international significance. Hence it perhaps should be assessed for upgrading.

Elements of considerable significance: International Canal monument mentions: Claverton and Crofton Pumping Stations, Avoncliffe and Dundas Aqueducts, Sydney Garden over-bridges, Garston Lock. Burbage crane (1035907).

Elements of some significance: see above

Many of the ordinary accommodation bridges are listed and these show a progression of material from masonry in the west to brick in the eastern section:

(Left) Kennet & Avon masonry bridge, Claverton (IoE 399479 Beryl Murray)
(Right) Kennet & Avon brick bridge, Enborne (IoE 394019 James A Irving)

The canal also has retained several cranes and that at Burbage is of particular interest and is listed Grade II.

A selection of cranes:

(Left) Burbage (IoE 312215 B J W Heath)
(Centre) Dundas Basin (Keith Falconer)
(Right) Newbury Wharf (Wikipedia Tom Bastin)

Some of the small lock-keepers houses have muted architectural pretensions such as the single storey cottage at Bath with lancet windows while the two storey cottage at Devizes is very different.

(Left) Lock Keepers Cottage, Bath(IoE 442750 Micaela Basford)
(Right) Canal Lodge Devizes (IoE 434460 John Burgoyne)

Re-opening of the Kennet & Avon Canal by HM Queen Elizabeth, 1990 (HungerfordVirtualMuseum)

Main References: BR/P-T/RE

1973 Clew, K. *The Kennet & Avon Canal* D & C

2001 Hackford, C. & H. *The Kennet & Avon Canal* The History Press

2002 Lindley-Jones, P. *Restoring the Kennet & Avon Canal* Tempus

Websites: CRT; Wikipedia; Kennet & Avon Canal Trust; Hungerford Virtual Museum

Waterway: **Ketley Canal**

Status: Closed and in-filled
Overall Heritage Value: 1
Owner/operator various landowners
Line: Ketley Furnaces to Shropshire Canal at Oakengates 2 miles
Date of opening: 1788
Closed: incline 1816, canal 1880s
Statutory designations: none

Summary Description and History:

The Ketley canal was built privately as a tub-boat canal and is of interest as the first canal in England to use an inclined plane designed by its owners Richard and William Reynolds. It was built in 1788 and overcame a 73 ft difference in height and later had a lock to connect with the Shropshire Canal. Although the incline was disused by 1818, after closure of the Ketley Ironworks, the Ketley Canal still served a coal wharf near Ketley Hall in 1842, and was not finally abandoned until the 1880s.

A small part of the canal in Paddock Mount, Ketley still holds water. (Wikipedia Gordon Cragg)

Statement of Significance:

The line of the incline can still be discerned but most of the canal has been obliterated. There may be archaeological evidence of some of its associated features. As a pioneer incline plane any remains would be noteworthy.

Elements of considerable significance: none evident

Elements of some significance: none evident

Main References: P-T/RR

1803 Plymley, J. *A General View of the Agriculture of Shropshire* Telford's article on canals dated Nov 1800 pp 284-316

1991 Morriss, R.K. *Canals of Shropshire* Shropshire Books.

2000 Trinder, B. *The Industrial Revolution in Shropshire* Phillimore

Websites: Wikipedia

Waterway:	**Lancaster Canal** (including Glasson Branch)	
Status:	CRT, mostly navigable	
Overall Heritage Value:	5	
Owner/operator:	CRT (BW:H)	
Line:	Kendal to Preston	57 miles
	Glasson Branch	3 miles
Date of opening:	Main Line	1819
	Glasson	1825
Statutory designations:	Scheduled Monument	3
	Grade I	1
	Grade II	128

Summary Description and History:

A splendid Northern Canal which originally ran from Wigan to Kendal, via a tramroad link from Walton Summit to Preston. The tramway had 3 inclined planes and was a double track horse-drawn line, which closed in 1862. The canal construction started in1792 under an Act of 1792 but took many years to complete and various engineers were involved. John Rennie was Principal Engineer, with William Crosley the elder as his assistant and Archibald Millar and Henry Eastburn resident engineers. Main contractors were John Pinkerton and John Murray, who were dismissed in 1795 and replaced by 35 small contractors. Alexander Stevens was contractor for Lune Aqueduct. The 42½ mile level pound between Preston and Tewitfield is the longest in UK.

The Glasson Branch, though part of Rennie's original proposals, was not built until 1819-25 by the younger William Crosley. The south end of the Lancaster now forms part of the Leeds & Liverpool. The canal has eight locks on the main line, six on the short Glasson Branch, four major aqueducts and two tunnels.

Lune Aqueduct (IoE 182235 Malcolm Shaw)

The canal opened in stages. When the Lune Aqueduct was completed in 1797 boats could navigate the long level pound 42 miles between Preston and Tewitfield where the canal stopped until eight locks and the Hincaster Tunnel were built from 1813 allowing the canal to reach Kendal in 1819.

Hincaster Tunnel West and East portals with accommodation bridge for horsepath (IoE 76445, 76442 CJ Wright)

With the coming of the railways, the proprietors sought to lease the canal to a railway company in 1860. This was achieved in 1864 and the Canal Company then received £12665.87 per year for the lease of the northern end of the canal, which allowed them to continue paying dividends and to make investments. Eventually, the railway company offered to buy the canal, and this was formalised by an Act of Parliament obtained on 16 July 1885. Short sections of the canal in the Kendal area were closed during the Second World war but attempts to close the whole canal were resisted until 1955 The section north of Tewitfield which included the only locks on the main line, was closed though the water supply was Killington Reservoir was preserved and channeled under the motorway.

(Left) Killington Reservoir built in 1819 covers 153 acres and is one of the CRT's largest reservoirs.
(Right) Millennium Ribble Link 2002 The 3-rise staircase locks (Wikipedia RHaworth)

There are ambitious plans to reopen this section involving the IWA, The Lancaster Canal Trust and several local councils but at present only small projects are being undertaken as the projected overall costs are vast. In 2016 a dinghy successfully navigated the whole length of Hincaster Tunnel. Meanwhile repairs and a facelift to the Lune Aqueduct have absorbed much of the attention.

The four-mile Millennium Ribble Link is a Linear Water Park and new navigation which links the once-isolated Lancaster Canal to the River Ribble and includes what was Great Britain's first inland waterway to be constructed in nearly 100 years when it was opened in July 2002, and was the first to be built for leisure purposes only, not commercial use. It is a navigation – it is not a canal - as boats can only travel in one direction on alternate days. From the Ribble it is possible to reach the main navigable system via the River Douglas and the Leeds & Liverpool Rufford Branch subject to tides and weather conditions. It has 8 locks and a rotating sea-lock.

Long term plans are being developed by Lancaster Canal Restoration Partnership to reopen the section north of Tewitfield, which is still in water for 9 miles (14 km), fed

by Killington Reservoir between Kendal and Sedbergh adjacent to the M6 motorway : the final 5 miles (8.0 km) into Kendal are dry.

Statement of Significance:

The northern lengths above Preston and especially between Lancaster and Kendal are the most spectacular, with many fine stone bridges and aqueducts the greatest of which, the Lune Aqueduct (1362451) is Grade I, the Wyre (1072931) at Grade II and the Sedgwick (1007095) is a scheduled monument.

Change Bridge, Kendal (Wikipedia, David Medcalf)
Rennie's aqueduct 1797 over Sharoe Brook (IoE 392049 G M Smith)
Sedgwick Aqueduct (Lancaster Canal Trust)

Most of the bridges and locks are also designated including the locks at Tewitfield (1166295) and a fine tunnel at Hincaster (1004594) with a horse lane (1004594) rising above it with its own designated accommodation bridge (1086577).

All structures display high architectural quality and evidence of the stonemason's craft.

Former warehouses and canal dwellings are few and mainly concentrated in Lancaster. Elsewhere there are remnant country wharfs, but few cottages.

Wyre Aqueduct (IoE 185393 Ruth Povey)

The Ribble Link is too recent to be assessed as a heritage asset.

Elements of considerable significance: Lune Aqueduct, Holme Aqueduct, Wyre Aqueduct, Sedgwick Aqueduct. Hincaster Tunnel and Horse Lane and excellent collection of high quality stone bridges. Glasson Dock (1005091) and associated buildings including the lighthouse (1071724) and Customs House (1164654).

Lighthouse and former Customs House (IoE 182292, 182291 Ruth Pavey

Elements of some significance: Tewitfield Locks (1166295), Whittle Hills Tunnel (1073099)

(Left)Tewitfield Locks (IoE 181997 Doug McNeill)
(Right) West Portal Whittle Hills tunnel (IoE 357701 Roy Finch)

Main References: **BR/P-T/RE**

2012 Agnew,G., Trevitt, R. *The complete guide to the Lancaster Canal* (5th ed.). Lancaster Canal Trust.

Websites: CRT Wikipedia

Waterway: **River Lark**

Status:	River with short navigable section	
Overall Heritage Value:	1	
Owner/operator	EA	
Line:		
Bury St Edmunds to	River Great Ouse	25 miles
Date of opening:	c. 1720	
	Closed above Judes ferry	
Statutory designations:	Grade II	1

Summary Description and History:

The River Lark was navigable to Mildenhall from medieval times but the section to Bury St Edmunds was only improved in the early 18th century by Henry Ashley by the construction of 14 staunches and 11 pound locks. Further improvements were made under an Act of 1817 but the navigation was never very profitable and it was officially abandoned in 1888 though some commercial traffic was generated by the Eastern Counties Navigation & Transport Company Limited when it was formed in 1889 and continued until 1928. Following acquisition by the Great Ouse Catchment Board, locks at Barton Mills and Icklingham were rebuilt in the 1960s, but were isolated when the A11 bridge was lowered soon afterwards. It now has one operational lock at Isleham, and can be navigated to Jude's Ferry, a distance of some 10 miles.

Isleham Lock (CanalPlan, Keeping Up)

Statement of Significance:

Little of heritage significance other than some abandoned locks. If any of these date from the 18th century and have fabric of that date they are of some interest.

Elements of considerable significance: none

Elements of some significance: ruined locks, Bury St Edmunds 1840 bridge (1343604)

Main References: BR/P-T/RE

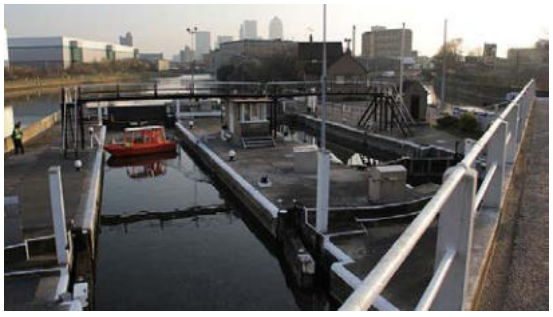
Websites: Wikipedia; East Anglian Waterway Association

Waterway: Lee (& Stort) Navigation

Status:		CRT	
Overall Heritage Value:		3 M (BWB)	
Owner/operator:		CRT	
Line:			
	Lee	Limehouse to Hertford	28 miles
	Stort	Feilde's Weir to Bishops Stortford	13.75 miles
Date of opening:		Lee	15th century onwards
		Stort	1769
Statutory designations:		Grade II	3

Summary Description and History:

The Lee was the first river subject of a navigation Act (1424) and had a pioneer pound lock at Waltham Abbey in 1577, along with various flash locks or staunches (called 'turnpikes' on the Lee). Important to London's water supply, the Lee fed into the New River of 1613. In the 1760s Thomas Yeoman made new cuts at the London end of the river and further improvements followed in the early C19. The Hertford Union (or Ducketts) Canal links the Lee with the Regents Canal (QV). The 1577 Pound Lock was built on a cut made between the Corn Mill Stream and the Old Barge River. Detailed specifications have survived, from which we know that it was built and lined with timber and had mitre gates at each end, making it probably the first true mitre-gated pound lock in the country. The lock was completely destroyed in June, 1592 and navigation returned to the Old Barge River course but the route of the channel built between the Cornmill Stream and the Old Barge River 400 years ago is still discernible and the site of the pound lock has tentatively been identified.



(Left) Bow Locks (London Canals 2015): (Right) Old Ford Locks and junction (London Canals)

The Stort Navigation joins the Lee near Hoddesdon and was improved and largely canalised by an Act of 1766 to make it navigable to Bishops Stortford a distance of some 13.75 miles involving the construction of 15 locks. Originally there wer three undertakers with Thomas Yeoman as engineer and it remained in the hands on one of them ,George Jackson and his successors until 1859 when it was sold to a Norwich firm of bankers by which time traffic had declined due to railway competition. It passed into the ownership of the Gilbey family who from 1900 sought to sell it to the Lee Conservancy and eventually it was acquired by the Lee in 1911

for a nominal sum. The Lee made much-needed improvements but industrial traffic declined after WWII and it is now a leisure waterway.

When in 1911 the Lee bought the Stort Navigation improvements to both waterways were made. The complex network of Bow Back Rivers (cut to serve mills from the C16 onwards) was re-engineered in several places.

In the mid 20th century still more improvements were made to the Lee's locks and commercial carrying did not cease until 1985. The industrial character of the lower reach was greatly altered when the 2012 Olympic Park was built.

The Stort Navigation locks were built to c.13 ft width and therefore can't take two narrow boats.

The Stort Navigation approaching Roydon (Wikipedia Ronhjones)

Statement of Significance:

The history and archaeology of the Lee are important.

Enfield Locks (London Canals)

A significant number of cottages (with attached offices), mainly white or stock brick, mid-late C19 types, survive at locks. Some are date marked and inscribed 'Lee Conservancy'. Architectural details include striped bands of brick and curly bargeboards.

Lee Conservancy Office Enfield
(London Canals)

Elements of considerable significance: site of the 1577 pound lock

Elements of some significance: locks, cottages and footbridges (1254962)

(Above) The lock and 1835 iron bridge at Rammey Marsh
(Right) Limehouse Cut old entrance (1065128)
(London Canals)

Main References: BR/P-T/RE

Websites: CRT Wikipedia

Waterway: **Leeds & Liverpool Canal** (and branches)

Status:	CRT waterway	
Overall Heritage Value:	5	
Owner/operator	CRT	
Line:		
Main Line Leeds to Liverpool (including section of Lancaster Canal)		128 miles
Rufford Branch (1781 and 1805)		7 miles
Leigh Branch to Bridgewater Canal (1820)		7 miles
Liverpool Canal Link (2009)		
Date of opening:	Main Line 1773–1816	
Statutory designations:	Scheduled Monument	1
	Grade I	1
	Grade II*	2
	Grade II	196

Summary Description and History:

The first trans-Pennine waterway to be authorised, the Leeds & Liverpool Canal, under an Act of 1770, linked those two cities by a broad canal and provided a route to Hull via the Aire & Calder. It opened in sections from 1770s, with several engineers, starting with James Brindley assisted by John Longbotham (who became sole engineer on Brindley's death in 1772), followed by Richard Owen, Robert Whitworth, Samuel Fletcher, and numerous assistants. The main line is 128 miles long with 91 locks, tunnels at Foulridge (at the summit) and Gannow and a huge embankment at Burnley. Water supply to the summit was a concern and Foulridge Lower Reservoir was constructed in 1798 almost directly above the canal tunnel.

Lock No1 Leeds (www.penninewaterways.co.uk)

At either end there were trans-shipment facilities, basins, warehouses and offices, some of which, especially in Leeds, survive in redeveloped use.

(Left) Foulridge Tunnel opened 1796 (IoE 186239 Brian Lomas)
(Right) Foulridge Lower Reservoir 1798, the CRT's earliest large reservoir (www.penninewaterways.co.uk)

The canal passed through the industrial towns of South Lancashire and the Pennines and historic wharf sites were established in Wigan, Blackburn, Burnley, Nelson, Skipton and Shipley. Smaller canal-side developments and yards occurred in places like Foulridge, Gargrave and Burscough and there are several boatyards along the line.

(Left) Foulridge Wharf (www.penninewaterways.co.uk)
(Right) Junction Bridge with the Bradford Canal to left (www.penninewaterways.co.uk)

Several short branches were built, the two main ones both being 7 miles long – the Rufford Branch in 1805 and in 1820 the Leigh Branch to link with the Bridgewater Canal. In 2009 the Liverpool Link across Liverpool's waterfront provided a connection via Stanley Dock to Albert Dock at a cost of £22 million.

The canal was a major industrial artery though much of its traffic was relatively short haul either side of the Pennines and indeed this trade was profitable long before the entire length of the canal was completed 1816. Although a section of the canal at the Liverpool end had become disused, elsewhere commercial trade survived until the 1970s by which time the canal had been recognised as hugely historically significant.

Statement of Significance:

The BWB description of the canal in 1999 is very succinct and accurate and merits repeating with elaborations. It is indeed a truly majestic canal crossing the Pennine watershed. The Bingley Five Rise Locks, rising 20 metres, are spectacular examples

of stonemasonry and lock-wrighting while the other staircase locks on the eastern ascent are equally finely executed.

(Left) Bingley Five Rise (www.penninewaterways.co.uk)
(Right) Top Lock and Cottage Aspull (IoE 213584 Peter Sargeant)

Many of the buildings and structures on the canal are typically of good quality stonemasonry – bridges and broad locks are in good condition and a number of stone-built cottages survive.

There are good groups (eg reservoir, tunnel, locks, bridges, buildings at Foulridge) in many places and these have group value. The embankment at Burnley is a true engineering achievement. A number of cottages on the central lengths have a repeated style: 2 storeys, 3 symmetrical bays, and these have high heritage value.

As the canal opened in stages and sections either side of the summit traded profitably for many years before the whole length of the canal was finally completed the changes in canal engineering over a period of over 40 years can be observed on the one canal.

River Lock, Granary Warehouse and Crane, Leeds (www.penninewaterways.co.uk)

At Leeds where the canal joins the Aire & Calder Navigation the Granary Basin has been the focus of much new canal-side urban regeneration and retains its historic Canal Office, Granary Warehouse and a fine crane.

At the eastern end the section from Leeds to Bingley is noted for its 3 two-rise staircase locks and 4 three-rise staircase locks before the five-rise Bingley staircase. The magnificent group of staircase locks near Bingley are appropriately designated,

the Five Rise (1314303) at Grade I, the Three Rise (1133361) and the Two Rise (1133359) at Grade II*.

Newlay Locks Three Rise Staircase (www.penninewaterways.co.uk)

West of the Pennines summits the Wigan flight of locks drops the canal by 21 single locks in a two mile stretch. It also displays a wide variety of swing bridges on the sections level with the surrounding landscape and the mile-long Burnley embankment which is up to 60ft high (and has even an urban aqueduct) is one of the most impressive features of the canal system.

Leeds & Liverpool Canal Burnley Embankment (www.penninewaterways.co.uk)

A fine late example of a reservoir dam listed grade II, is the dam of the Winterburn Reservoir (1281534) with its magnificent ornamented water-ladder and low level outfall culvert.

Winterburn Reservoir water ladder c.1885 (IoE 382302 Stewart Cardwell)

The Leeds & Liverpool had maintenance facilities at several places including Burscough (1297511), Banknewton, Foulridge and Gargrave, and Clarke (1990) has identified more than 30 boat yards which can be divided into three groups – those belonging to the canal company for the repair of their own boats, privately owned yards belonging to carriers for the repair of their own boats and general repair yards.

Graving docks built by the Leeds & Liverpool Canal company survive at the eastern end of the canal in Leeds and are listed. (1255711).

Canal Company Offices 1816 Leeds (IoE 465728 David Karan)

In Leeds at the canal basin the Granary Warehouse has been sympathetically converted and to the west there are fine warehouses at Skipton, Shipley, Foulridge, Eanam Wharf Blackburn (1239471) and at Wigan where the Terminal Warehouse (1384555) and Gibson's Warehouse have been restored.

(Left) Rebuilt Terminal warehouse, Wigan (IoE 484990 Pamela Jackson)
(Right) Burnley Warehouses (IoE467117 Graham R. Heasman)

Rufford branch

The former dry dock alongside the Rufford Branch at Lathom Junction (www.penninewaterways.co.uk)

Rufford Branch – unusual paddle mechanisms: wooden levers lifted into a vertical position to open the paddle and horizontal rotating handles. (www.penninewaterways.co.uk)

Leigh Branch

Chain-operated balance beam, lower Poolstock Lock. (www.penninewaterways.co.uk)

Elements of considerable significance: Bingley Five Rise locks. Leeds terminus and associated buildings/canal office. Wharfs in Skipton and Wigan and associated buildings/structures. Burnley Embankment. Bank Hall Dry Dock, Burnley

Burscough canal settlement/structures.)

The Gannow and the Foulridge Tunnels (1073395 and 1361715, 1290690). Winterburn Reservoir. Dowley Gap Aqueduct (1133357) The 1816 offices (1255693) in Leeds.

(Left) Gannow Tunnel 1801 (IoE 467038 Peter J. Sturtivant:
(Right) East Marten Double Arched Bridge (www.penninewaterways.co.uk)

Elements of some significance: Buscough Dry Dock

Many high quality stone bridges (including East Marten double arched bridge), locks, aqueducts. Warehouses and canal-side buildings at Liverpool, Blackburn, Burnley (a part of the Weavers Triangle archetypical industrial landscape), Church and Rosegrove.

Weavers Triangle, Slater Terrace (Wikipedia Chris Allen)

Main References: **BR/P-T/RE**

1994 Clarke, M. *The Leeds & Liverpool Canal* Carnegie Publishing

Websites: CRT Wikipedia

Historic England's Image of England Collection contains over 240 entries pertaining to the canal which can be viewed online.

The Pennine Waterways website includes a virtual tour of the whole length of the canal and its branches.

Waterway: **Leominster Canal**

Status:	Abandoned (derelict)	
Overall Heritage Value:	2	
Owner/operator:	various	
Line:	Leominster to Marlbrook	18.5 miles
Date of opening:	1796	
Statutory designations:	Grade II	3

Summary Description and History:

The Leominster Canal as built was a shortened and isolated section of a much longer proposed canal from the River Severn opposite Stourport to Kington authorised by a 1791 Act. The line from Leominster to Stourport had been surveyed by the younger Thomas Dadford and would have needed four tunnels. Work started at Marlbrook and by 1796 had almost reached Leominster but the 1254 yard Southnet Tunnel which had just been finished fell in and funds were not available to remedy the situation. Work stopped including the Pensax Tunnel to be 3650 yards but saw the canal open from Marlbrook to near Leominster 18.5 miles with 16 narrow locks, a 330-yard tunnel at Putnal Field, a 94-yard tunnel at Newham and aqueducts over the Teme at Woofferton and over the Rea at Marlbrook.

The canal was never profitable and was eventually sold in 1858 to the Hereford & Shrewsbury Railway which closed and drained it in 1859 part of it being later used for the Tenbury railway. There is a Friends of the Leominster Canal Society that organises walks to the remains of the canal.

(Left) Teme Aqueduct blown up WWII (IoE 484205 Richard Summers)
(Right) Rea Aqueduct (Wikipedia, thegreencorsair)

Statement of Significance

Although the canal has been closed for over 150 years, there are some remains left, including an aqueduct over the River Rea which in 2013 partially collapsed and parts of a 3-arched aqueduct over the River Teme, the centre arch of which was destroyed as part of an explosives exercise during WWII.

Elements of considerable significance: Wharf House Marlbrook (1383588)

Wharf House, Marlbrook, the headquarters of the Kington and Leominster Canal Company (IoE 484020 John Burrows)

Elements of some significance: remains of Aqueducts (1383584 and 1383773) , ruined locks near Woofferton, lock-keepers houses, vestigial remains of canal portals at Southnet (S) and Putnal Field Tunnel.

Main References: **P-T/RE/RR**

Websites: Wikipedia

The Friends of the Leominster Canal organise regular walks and visits to the canal and associated features.

Waterway: **Leven Canal**

Status:	abandoned (Part watered SSSI)	
Overall Heritage Value:	1	
Owner/operator:	EA?	
Line:	Leven to River Hull	3 miles
Date of opening:	1805	
Closed:	1935	
Statutory designations:	Grade II	1

Summary Description and History:

The Leven Canal was built for Mrs Charlotta Bethell under an Act of 1801 and completed in 1805, and remained in use until 1935. Surveyed by William Jessop, the 3.25-mile (5.2 km) long canal was constructed to allow Humber Keels to reach the granaries and warehouses at Canal Head in the village. One of the original two warehouses built at the canal basin in 1825 still remains, though it has been converted into a private residence. Coal, lime and building materials were imported, while local agricultural produce was sent down the river to Hull.

The canal was busy during its life, but traffic started to fall off in the 1930s, and it was officially closed in 1935. Eventually the lock fell into disuse, and Leven Canal became cut off from the river. Subsequently, the lock, which was a flood lock containing three sets of gates, was turned into a sluice, to allow water to pass into the River Hull. The waterway was cut in half when it was decided not to maintain the aqueduct over the 'Old Sal' or Holderness Drain. The canal bed has been replaced by a pipe over the drain, which is part of the flood defence system of this low-lying area, and about 50m of canal adjacent to this, under a pipe bridge, has been filled in. The rest of the canal is still in water and has been a SSSI since 1962.

(Left) Entrance lock (Wikipedia, Paul Harrop): (Right) Sandholme Farm Aqueduct (IoE 164504 Les Waby)

Statement of Significance:

The aqueduct (1160616) at Sandholme Farm, which carries the canal over a drainage ditch which was already in existence when the canal was built, is largely constructed from red bricks, and has three segmental arches. It is Grade II listed

Elements of considerable significance: none

Elements of some significance: aqueduct at Sandholme Farm (Grade II), Leven wharf warehouse

Main References: **BR/P-T**

2013 The River Hull Valley Drainage Group *Becks. Banks, Drains and Brains*

Websites: Wikipedia

Waterway: **Liskeard & Looe Canal**

Status: Abandoned
Overall Heritage Value: 1
Owner/operator: various
Line Moorswater to the River Looe at Terras Pill 6 miles
Date of opening: 1828
Closed: 1862
Statutory designations: none

Summary Description and History:

This short canal was exceptional among West Country canals in that it was profitable. It was built under an Act of 1825 to link the Liskeard area to the River Looe near its mouth and had 25 locks in its 6 miles. Despite such heavy lockage the canal carried so much traffic that the canal company extended the wharf facilities at Moorswater and eventually built a railway alongside the canal itself. However, when this opened in 1860 the canal itself soon became disused apart from a short barge section from Sandplace to Terras Pill where traffic lasted until about 1910. There has been some interest in conserving the remains of the canal in recent years, but little as yet has transpired on the ground.

(Left) Terras Pill Bridge c.1825 (IoE 60668 Roger Norman): (Right) Remains of lock beside railway. (Wikipedia, David Stowell)

Statement of Significance:

The canal channel survived when the railway was built and there are several original bridges and remains of locks.

Elements of considerable significance: none

Elements of some significance: bridges and locks, limekilns at Moorswater

Main References: P-T/RR Priestley 1831

2001 Messenger, M. *Caradon & Looe – The canal, railways and mines* Twelveheads Press

Websites Wikipedia

Waterway:	Louth Navigation	
Status	Abandoned navigation, derelict but still watered	
Overall Heritage Value:	3	
Owner/operator:	EA	
Line: Louth to Tetney Lock (River Humber)		11.5 miles
Date of opening:	1770	
Closed:	1924	
Statutory designations:	Grade II	9

Summary Description and History:

The Louth Navigation was partly a canalisation of the River Ludd under an Act or 1763. Surveyed by John Grundy and endorsed by Smeaton, the navigation was opened to Louth in 1770 with eight locks and a sea lock.

Six of the locks were built with chamber sides composed of six segmental arches in the vertical plane to resist lateral earth pressure. The canal cost £28,000 to build and was able to carry seagoing boats and for much of its life the canal was leased by the Chaplin family who were able to run it at something of a profit with estimated tolls getting as high as £5000 a year in the late 1820s. The coming of the railways lead to a decline in the use of the canal and traffic ceased during WWl. The Louth flood of 1920 caused much damage and all the navigation property was sold in 1924 and the waterway allowed to become derelict. The Louth Navigation Trust which was formed in 1986 has since restored the tow path which may be walked and parts of the canal are in shallow water. They are currently engaged in an ambitious scheme to restore the full length of the canal by 2020.

(Left) Alvingham Lock and basin (1767). The river Ludd, is culverted and passes under the lock by means of an inverted syphon (IoE 195450 Trevor Sowray)
(Right) Navigation Warehouse, Louth (IoE 355295 Trevor Sowray)

Statement of Significance:

The Louth Navigation, unlike many other disused canals, is in water throughout its length and has not been in-filled or built over as it is important for drainage of the surrounding land. Several formerly movable bridges have since been replaced with

fixed bridges. The 8 locks are in varying states of repair, two have been completely obliterated, Alvingham lock (1063080) is the best surviving example of an interesting group of locks featuring pioneer constructional techniques.

The fine 1790 Navigation Warehouse (1240242) at Louth has been handsomely restored and is the base of the Louth Navigation Trust. It, Jackson's Warehouse (1261127) and the nearby Baines Flour Mill (1078197) are all listed as are the warehouses down the canal at Grainthorpe (1063112) and Thoresby Bridge (1168140). The four locks with scalloped sides – Ticklepenny (1063048), Willows (1063049), Salter Fen (1063081) and Alvingham are listed but the partial remains of the straight-sided Outfen Lock are not. As an example of the pioneer phase of canal construction any unprotected early features on the Louth Canal should be assessed for designation.

Ticklepenny Lock (IoE 195470 Trevor Sowray)

Elements of considerable significance: Alvingham lock, Navigation Warehouse

Elements of some significance: surviving locks and warehouses

Main References: **P-T/RR/RE** **Priestley 1831**

Websites: Wikipedia Louth Navigation Trust

Waterway: **Lydney Canal**

Status:	operating waterway	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line:	Lydney to River Severn	1 mile
Date of opening:	1813	
Statutory designations:	Scheduled Monument	1
	Grade II	1

Summary Description and History:

A short canal and dock built under Acts of 1809 and 1810 to connect a tramway to the River Severn via a harbour capable of taking ships 100ft by 24ft. Designed by Josiah Jessop with Thomas Sheasby resident engineer the canal opened in1813, the outer harbour in 1821 and the tramway extended all the way down. The Company went bankrupt in 1893 and was taken over by railways the following year. The last coal was shipped in 1960 and the harbour closed in 1977.

Entrance Basin, Lydney (Wikipedia, David Stowell)

In 1996 the Environment Agency took over management of the docks but in 1997 the inner gates collapse and have to be replaced by a dam to reduce flood risk. In 1998 the Lydney Docks Partnership was established to create a sustainable future for the canal and in 2005 it re-opened after a project of restoration and enhancement to create a marina and harbour area for seagoing yachts and motor boats.

Statement of Significance:

Of interest as a transhipment facility between an early tramroad and canal

Elements of considerable significance: none

Elements of some significance: harbour (1002079) and swing bridge (1338556)

Main References: BR/P-T

Websites: Wikipedia

Waterway: **Macclesfield Canal**

Status	CRT	
Overall Heritage Value:	4	H (BWB)
Owner/operator	CRT	
Line Peak Forest Canal to	Trent & Mersey Canal	26 miles
Date of opening:	1831	
Statutory designations:	Grade II	116

Summary Description and History:

The Macclesfield Canal was a late canal designed as a more direct link between Manchester and the Midlands, and following its Act of 1826, the canal opened five years later. It was one of the last narrow-gauge canals (112 locks 7ft wide) to be built, and the audacious 'cut and fill' techniques, high embankments and ambitious cuttings and eight aqueducts are all indicative of Thomas Telford's hand as consulting engineer with William Crosley as resident engineer. As this was a late canal, the lessons of earlier works were incorporated: locks, for example, are all grouped closely together for efficiency of operation.

The canal was a success, and in its first full year of operation (March 1832-March 1833) the income was over £6,000 but the arrival of the railways led to the decline of the canal. The canal therefore negotiated a perpetual lease to a railway and on 1 January 1847, ownership of the canal passed to the Manchester Sheffield & Lincolnshire Railway. Although commercial carrying on the canal continued into the 1960s the threat of closure hung over it until the 1968 Transport Act. The first canal to form a narrow boat cruising club (as early as 1943) it is now part of the Cheshire ring and a very popular cruising canal.

(Left) A skew bridge with segmental archway, Black Road, Macclesfield, (IoE 391032 Patricia Layhe)
(Right) Turnover Bridge Congleton (IoE 55952 Graham R. Heasman)

Statement of Significance:

As befits a late Telford canal all the structures are crisply designed and in this case built in hard-wearing sandstone with several of the finely built bridges with skewed arches and superb, curling turnover bridges exhibiting virtuosity in stone.

The best aqueduct is Congleton, a composite iron and stone structure with decorative handrails.

(Left) Congleton Aqueduct (IoE 55951 FE Hutchinson)
(Right) Pool Lock Aqueduct carrying the Macclesfield Canal over the Trent and Mersey Canal. Dated 1829. (IoE 56499 J M Pickering)

The following are all Grade II listed: Five aqueducts Biddulph Valley (1237570), Canal Road (1130449), Dane (1135940), Pool Lock (1330050), Red Bull (1038594), all twelve locks, Bridge numbers 1, 2, 4–12, 33, 35, 36, 38–41, 43, 44, 50, 52–64, 66, 67, 69, 70, 72, 74, 76, 77, Pool Lock footbridge, Warehouse adjacent to bridge number 1'Drydock at 53.2878°N 2.1045°W,

(Left) Warehouse, Junction Bridge, Marple (I0E 441456 Michael J. A. Smith)
(Right) Shores Clough Culvert (IoE 57983 J M Pickering)

Other designated assets include Sluices Weir and Culvert (1136511) carrying Shores Clough under the canal, fourteen milestones, five distance markers and two sets of stone fence posts.

(Left) The Valve House, Bosley Reservoir Dam (IoE 58116 J M Pickering):
(Right) Sugar Lane Skew Bridge (www.penninewaterways.co.uk)

The tunnel-vaulted Valve House in Reservoir Dam II (1138905) of circa 1830, by William Crosley engineer, is built of of cyclopean stonework.

Elements of considerable significance: Aqueducts – Congleton, Red Bull, Grimshaw, Biddulph, Gurnett, Bollington. Bosley Locks and side ponds. Turnover bridges-rare/outstanding examples eg Congleton.

Elements of some significance: Good collection of stone bridges such as the Sugar Lane skew bridge.

Many surviving 'headstone' type milestones. Red Bull Yard. Dry dock at Bollington at the end of the tramway from Endon quarry.

(Above) Milestone, Bollington (IoE 427418 Steve Davis)

(Right) Dry dock, Bollington (IoE 57974 Steve Davis)

Main References: **BR/P-T** **Priestley 1831**

Websites: CRT; Wikipedia; Macclesfield Canal Society

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway:	**Manchester Bolton & Bury Canal**	
Status:	Abandoned (isolated sections restored)	
Overall Heritage Value:	3	
Owner/operator:	various	
Line	Irwell to Bolton	11 miles
	to Bury	4 miles
Date of opening:	1796 to Bolton and Bury 1808 throughout	
Closed:	1925, 1941, 1961	
Statutory designations:	Grade II	8

Summary Description and History:

The M B & B canal was built under various Acts, the first of consequence being 1791. Hugh Henshall surveyed the route with Mathew Fletcher, Charles Roberts and John Nightingale involved in the works. It had six aqueducts, four short tunnels and 16 locks originally (later 17) some of which were built to narrow gauge and widened shortly afterwards when a link to the Leeds & Liverpool Canal was proposed.

The canal was prosperous for much of the 19th century and the company even turned itself into a railway company the line of which when built by 1838 deviated somewhat from the canal and was absorbed into the Lancashire & Yorkshire in 1847.

The canal always suffered from subsidence and slip because of the extensive local coal mining and breaches became more and more serious culminating in a breach in 1936 which was never repaired. The canal was closed in sections thereafter with the last commercial traffic finally ceasing in 1968 seven years after the canal was officially abandoned.

(Left) Prestolee Aqueduct over River Irwell (IoE 210525 David H Swain)
(Right) Clifton Aqueduct (IoE 211968 Brian Lomas)

Almost 60% of the canal's original length is no longer in water, Bury Wharf is now covered by an industrial estate, four of the six aqueducts have been demolished and many of the locks and bridges have gone yet enthusiasts are keen to restore much of the canal and the M B & B Canal Society was formed in 1987 to help secure the canal's future. Indeed, some sections are already restored and the entire route of the canal is protected from any adverse development that would prevent its restoration,

having been included in the development plans of the three local councils. The Pennine Waterways website shows some of this recent restoration work.

Statement of Significance:

Prestolee (1162420) and Clifton (1162680) Aqueducts and the canal-side steam crane (1242921) at Mount Sion are designated and much of the original fabric of the canal has been retained when possible in the recent restorations.

A new pedestrian footbridge, designed by artist Liam Curtin was opened at Nob End Locks in April 2013 made entirely out of scaled-up pieces of Meccano. Built by society volunteers and other members of the public at a cost of about £90,000 it may be a significant monument in the future.

(Left) Mount Sion Steam Crane (Wikipedia Parrot of Doom)
(Right) Manchester Bolton & Bury Canal Society

Elements of considerable significance: Prestolee and Clifton Aqueducts and the steam crane at Mount Sion

Elements of some significance: surviving original locks including two three-rise staircase locks at Nob End

Nob End staircase locks (www.penninewaterways.co.uk)

Main References: BR/P-T/RR

1991 Tomlinson, V. I., *The Manchester Bolton And Bury Canal*, The Manchester Bolton & Bury Canal Society

Websites: Wikipedia Manchester Bolton & Bury Canal Society

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway: **Manchester & Salford Junction Canal**

Status:	Abandoned	
Overall Heritage Value:	2	
Owner/operator:	Manchester Ship Canal (Peel Holdings) ?	
Line	River Irwell to Rochdale Canal	0.6 mile
Date of opening:	1839	
Closed:	1936	
Statutory designations:	Grade II	1

Summary Description and History:

Only 5/8 of a mile long with four locks and a 499 yard tunnel the M & S Junction Canal was authorised in 1836 and linked the River Irwell with the Rochdale Canal and passes under central Manchester and lifted water from the Irwell with two pumping stations.

(Left) Entrance Lock (www.penninewaterways.co.uk)
(Right) Underground section transhipment wharf (Wikipedia Grimey121uk)

In 1885 the Great Northern Warehouse was built on top of the line of the canal and an underground dock was constructed to allow the interchange of goods.

There were four large bays below the warehouse with two lift shafts to allow goods to be unloaded from the boats using the canal, and raised up to the warehouse for storage.

Statement of Significance:

The canal is of some significance as an example of the expensive solutions resorted to retrospectively connect canals in urban areas and for its trans-shipment wharfs to railway warehouses above. The canal is now dry, and disused, although large parts remain underneath the city, particularly sections underneath Granada studios and the Great Northern Warehouse and there are reputedly remains of the pumping stations in the covered sections. The original western entrance is still visible from

the River Irwell; the eastern entrance has been redeveloped into a small canal basin behind the Bridgewater Hall.

Elements of considerable significance: trans-shipment wharf and shafts (1405199)

Elements of some significance: remains of pumping stations

Main References: P-T/RR

Websites: Wikipedia Subterranea Britannica website

The Pennine Waterways website includes photographs of much of the main features of the canal.

Waterway:	**Manchester Ship Canal**	
Status:	operating waterway	
Overall Heritage Value:	4	
Owner/operator:	Peel Ports	
Line	Eastham to Manchester 36 miles	
Date of opening:	1894	
Statutory designations:	Grade II*	2
	Grade II	5

Summary Description and History:

One of the heroic feats of Victorian engineering, the Manchester Ship Canal, built under an Act of 1885, had a difficult gestation and cost more than twice its original estimate. It had to acquire the Bridgewater Navigation to be supplied by water from the River Irwell and build numerous high level rail bridges and swing road bridges and the Barton Swing Aqueduct to carry the Bridgewater Canal over the Ship Canal. Engineered by Leader Williams, it opened in 1894 and deadweight ships of 12,500 tons could now reach the extensive new docks at Salford and Manchester.

Manchester Ship Canal Eastham Locks under construction (Waterways Archive BW192/3/2/1/15/4BW192/3/2/1/15/4)

After a slow start the canal, which never fulfilled its commercial expectations, was to become lined with new industries. Traffic peaked in 1958 at 20 million tons but decreased thereafter to about 7 million tons in 2011.

2005 (Wikipedia John Eyres|)

As of 2014 it is owned and operated by Peel Ports, which also owns the Port of Liverpool. The company announced a £50 billion Atlantic Gateway plan in 2011 to develop the Port of Liverpool and the Manchester Ship Canal as a way of combating increasing road congestion. Their scheme involves the construction of a large distribution centre to be named Port Salford and an additional six sites along the canal for the loading and unloading of freight. Peel Ports predict that the number of containers transported along the canal could increase from the 8000 carried in 2010 to 100,000 by 2030.

Statement of Significance:

Most of the immense engineering works are of considerable significance as examples of very fine large scale Victorian construction.

The Grade II* Swing Aqueduct (1162870) is one of the most significant monuments of the canal system. Moore Lane Swing Bridge is listed Grade II as is Trafford Road

(Above) Baron Swing Aqueduct (Wikipedia G-Man)
(Right) Moore Lane Bridge (IoE 58966 Keith Walker)

The Docks at Salford which featured extensive pioneer reinforced concrete warehouses (now demolished) have become the focus of 21st century business and cultural developments. It would appear that none of the locks themselves are designated hence in view of the proposed plans for expansion of container traffic an assessment of all the historic structures is perhaps needed.

The Mersey & Irwell navigation prior to its absorption into the route of the Manchester Ship Canal had been improved by several new cuts on the Mersey. On

the best preserved relic section of the line of the Mersey & Irwell Navigation – the Woolston New Canal Cut of 1822 - Paddington Lock has been partially restored as part of New Canal Cut Trail. The New Cut left the river at Paddington Lock and re-entered it via Woolston Lock above Woolston Weir.

The River Mersey and the Ship Canal are spanned by several notable railway and road bridges including those at Runcorn and Warrington. At the former a high level railway bridge of 1868 spanned the river while at the latter a transporter bridge of 1915 still spans the river and is designated. The earler transporter bridge at Runcorn was demolished in 1962

Elements of considerable significance: Barton Swing Aqueduct. Canal Locks. Magazine Building (1138825)

Elements of some significance: Road swing bridges including Moore Lane (1135930) and Trafford road (1386184). Paddington Lock (New Canal Cut)

(Left) Mode Wheel Lock (www.penninewaterways.co.uk)
(Right) Sluices discharging water from the River Weaver into the Mersey (Wikipedia Peter Hodge)

Main References: **BR/P-T**

1983 Owen, D. *The Manchester Ship Canal* Manchester University Press

1997 Gray, E. *Manchester Ship Canal* Alan Sutton,

2005 Wood, C. *Manchester's Ship Canal: The Big Ditch* History Press

Websites: Wikipedia

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway:	**Market Weighton Canal**

Status:	Abandoned but navigable	
Overall Heritage Value:	2	
Owner/operator:	EA	
Line:	Humber to near Market Weighton 9.5 miles	
Date of opening:	1782	
Statutory designations:	Scheduled Monument	1
	Grade II	1

Summary Description and History:

Surveyed by William Jessop and John Grundy and engineered by a Mr Whitworth, the Market Weighton canal ran 9.5 miles (15.3 km) from the Humber estuary to its terminus near Market Weighton. It gained its Act in 1772 and opened in 1782 but its role as both a navigation and a drainage channel has always posed operational difficulties.

Entrance lock (Wikipedia Martin Wilson)

The 3.5 miles (5.6 km) closest to Market Weighton, with the three inland locks, was abandoned in 1900 and the right of navigation through the tidal Weighton lock was lost in 1971. However as of 2002 the lock was passable, and the canal usable, up to the junction with the River Foulness where silt has made it impassable. Also there is no right of navigation under the M62 motorway bridge to the north of Newport.

Statement of Significance:

The canal has always been of only local significance. The lower section of the canal, including Weighton Lock, (also called Humber lock), which provides access to the River Humber, was abandoned in 1971, but when they heard that the lock was likely to be demolished, the Market Weighton Civic Trust moved quickly to have the whole structure designated as a scheduled monument and their action, together with public pressure resulted in the lock being repaired and reopened.http://en.wikipedia.org/wiki/Market_Weighton_Canal - cite_note-jane-5 Further repairs and an overhaul of the structure were carried out in 1994 by the National Rivers Authority at a cost of £1.5 million, and although there is no public right of navigation on the waterway,

access is possible by arrangement with the Environment Agency, who currently own it. The early abandonment of the inland locks has resulted in much early fabric surviving hence the 2 Heritage Value.

(Left) Disused lock, Holme-on-Spalding-Moor (Wikimedia Andy Beecroft)
(Right) River Head Warehouse Market Weighton (IoE 167098 Les Waby)

The canal warehouse (1084113) at River Head is designated Grade II

Elements of considerable significance: none

Elements of some significance: Weighton Lock (1031829), canal warehouse

Main References: BR/P-T/RR/RE

Websites: Wikipedia

Waterway: **Melton Mowbray Navigation**

Status:	Abandoned navigation partly restored	
Overall Heritage Value:	1	
Owner/operator:	EA?	
Line: Melton Mowbray to Syston (River Soar)		15 miles
Date of opening:	1797	
Closed:	1877	
Statutory designations:	Grade II	2

Summary Description and History:

In the 1790s Christopher Staveley drew up the detailed plans for this largely river navigation but was replaced as engineer by William Green. There were numerous lock cuts, to accommodate the 12 broad locks built along its length, many of which were built at sites where it was necessary to maintain the water levels for an adjacent mill. With railway competition, and the closure of the Oakham Canal, to which it was connected, decline was rapid, and the canal closed in 1877.

Old sluice gate, Asfordby (Wikipedia Tim Heaton)

Two hundred years after the navigation was opened, the Melton & Oakham Waterways Society was formed, with the aim of returning the navigation to a navigable waterway once more

Statement of Significance:

Most lock chambers are still extant though in need of repair.

A slipway has been built in Melton Mowbray by Waterway Recovery Group volunteers, some dredging and towpath repairs undertaken, and the society has worked with the Sustrans Connect2 project to replace the entrance footbridge at Syston with one offering navigable headroom. Once completed, Syston Lock will need to be refurbished to open up the first 1 mile (1.6 km) of the waterway to Lewin Bridge and the Gate Hangs Well public house.

(Left) Disused lock (Melton and Oakham Waterways Society)
(Right) Mill Lock Bridge (Melton and Oakham Waterways Society)

Mill Lock and bridge (1360860) and an early 19th-century cast iron bridge (1265072) over the canal by Cooke and Sons Engineers Melton are Grade II. Because of these listing and the early date of closure (1877) preserving early fabric a Heritage Vale of 2 is warranted.

Elements of considerable significance: none

Elements of some significance: locks and bridges

Main References: **P-T**

1992 Stevens, P.A. *The Leicester and Melton Mowbray Navigations* Alan Sutton

Websites: Wikipedia Melton and Oakham Waterways Society

Waterway: **(Upper) River Medway**

Status: Navigable for small craft
Overall Heritage Value: 1
Owner/operator EA
Line: Tonbridge to Maidstone 16 miles
Date of opening: 1750
Statutory designations: none

Summary Description and History:

The Medway above Maidstone was improved for navigation under an Act of 1740 with 16 locks. The Navigation undertakers had a carrying monopoly and developed a trade in coal and iron but never supplied a horse towpath. Trade declined faced by railway competition and the company went into liquidation in 1910. Under an Act of 1991 a new conservancy company backed by Kent County Council replaced 13 old locks with 10 new ones and the navigation re-opened in 1915 but no tolls were taken after 1928. The river is managed by EA and pleasure craft can still reach Tonbridge.

Oak Weir Lock (Wikipedia, Clem Rutter)

Statement of Significance:

As most of the locks are comparatively new there is little of historic significance other than the disused older locks and some bridges none of which appear to be designated.

Elements of considerable significance: none

Elements of some significance: none

Main References: BR/P-T/RE/McK

Websites: Wikipedia

Waterway: **Montgomery Canal** (Llanymynech Branch S U)

Status: CRT Abandoned but being restored
Overall Heritage Value: 3
Owner/operator: CRT (BWB:H)
Line:
(in England) Frankton Junction to Llanymynech 11 miles
Date of opening: 1796
Abandoned: 1944
Statutory designations: see Shropshire Union

Summary Description and History:

See **Shropshire Union** for historical summary

Engineered by John Dadford and Thomas Dadford the Younger the Llanymynech Branch of the Ellesmere canal was opened in 1796 linking the main line at Frankton Junction with Llanymynech. This joined the Montgomeryshire Canal at Carreghofa Locks when the Montgomeryshire opened in 1797. This 11 mile section, though originally a branch of the Ellesmere Canal, is today considered the first section of the Montgomery Canal.

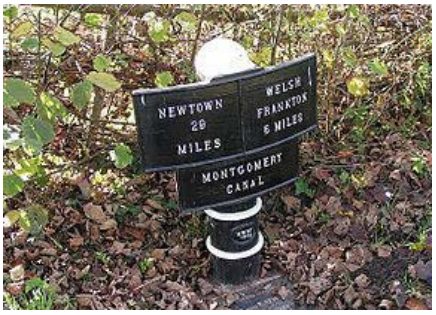
(Left) Frankton Staircase Lock (Wikipedia AkkE): (Right) Maesbury Marsh (Wikipedia Dave.Dunford)

The section of the canal from Frankton Junction to Gronwen Wharf (7 miles) was reopened in 2007 and is navigable by narrowboat.

The section of the canal from Redwith Bridge to Llanymynech is dry and partially infilled but restoration is gradually taking place from Redwith Bridge to Crickheath Wharf.

Statement of Significance:

With the Montgomery Canal, this section has a prime place in the history of the canal restoration movement and when a new lock was required it was named Graham Palmer Lock, after the founder of the Waterway Recovery Group.



(Left) Memorial to Graham Palmer, a key figure in waterway restoration (Wikipedia Mayalld): (Centre) Llanymynech (CRT): (Right) Milepost (Wikipedia Dave.Dunford)

Llanymynech,(1006766) with its lime kilns, associated tramways, structures and other buildings at Llanymynech is a site of considerable industrial archaeological importance and these are scheduled monuments. In 1999 on the entire length of the canal, including Welsh section, there were 2 Grade II*, 113 Grade II listed buildings

Elements of considerable significance: Llanymynech Wharf

Elements of some significance: numerous locks, smaller aqueducts and bridges and mileposts.

Main References: BR/RE

Websites: CRT Wikipedia

Waterway: **River Nene**

Status:
Overall Heritage Value: 3
Owner/operator: EA
Line GUC Northampton to Dog-in-a-Doublet 66 miles
Date of opening: improved 1761 onwards
Statutory designations: Grade II* 2

Summary Description and History:

The navigable river Nene extends from the junction with the Northampton Arm of the Grand Union Canal to the mouth of the river on the Wash at Crab's Hole. The navigable river is 88 miles long and has 38 locks. Peterborough (31 miles inland) was the tidal limit until the lock and sluice were built at Dog-in-a-Doublet in 1937, a further five miles towards the sea.

Dog-in-a-Doublet Sluice and lock
(Geograph, Alan Murray-Rust)

The first work to improve navigation began in the Middle Ages, and an Act to improve navigation on the river was passed in 1713, enabling Northampton to be reached from the sea by 1761. Fragmented management meant the Navigation remained in a poor state until 1931 when the Nene Catchment Board was established, with major improvements to the locks being undertaken during that decade. a result of the passing of the Land Drainage Act (1930) all of the locks were rebuilt, and the remaining staunches replaced with locks. A new lock and sluice were built at Dog-in-a-Doublet, to prevent salt water passing up the river, and to maintain water levels to Peterborough. The Environment Agency is the current successor to that Board.

Statement of Significance:

Though a river with a long history of navigation, because of the improvements in the 1930s, there is little of heritage significance on the river itself other than the impressive Dog-in-a-Doublet entrance lock and sluice, bridges , several of which are historic structures including Ferry Bridge (1126812), a three span masonry bridge 'built at the sole cost and charge of the It Hon William Fitzwilliam 1716' and Thrapston Bridge (1040327).

(Left) Ferry Bridge (Wikipedia Terry Butcher): (Right) Cross Keys Bridge, Sutton Bridge (IoE 197930 James Brown)

The former swing bridge at Sutton Bridge (11645360) . This road and rail hydraulic swing bridge, now road bridge, was erected by A. Handyside & Co. Ltd. Steel and opened in 1897. The first bridge of 1830/1 was designed by Rennie with cast iron opening spans but the present bridge replaces the second bridge of 1850, designed by Stephenson, which was used for rail traffic and is Grade II*.

Nine Arch Bridge Thrapston
(IoE 232485 Roger Ashley)

There are also watermills such as Kislingbury using the river and the large 19th century Victoria Mills at Wellingborough.

(Left) Victoria Mill, Wellingborough (Wikipedia Kokai):
(Right) Dog-in-a-Doublet Sluice and lock, Old Pumping Station (North Level IDB)

There are two pumping stations at Dog-in-a-Doublet Sluice and lock, the older of which was built in 1938 incorporating the old navigation lock as its outfall.

Elements of considerable significance: Historic bridges – masonry and moveable

Elements of some significance: mills, entrance lock, sluice and old and new pumping stations.

Main References: BR/P-T/SF/ McK

Websites: IWA Wikipedia

Waterway:	**Newdigate (Arbury) Canals and Griff Hollows Canal**

Status:	Disused and largely disappeared
Overall Heritage Value:	1
Owner/operator:	private
Line:	seven small canals on Arbury Estate totalling 6 miles
Date of opening:	1764 onwards
Statutory designations:	none

Summary Description and History:

Built by Sir Roger Newdigate on his estate with William Bean as engineer, the Arbury Canals consisted of seven sections of canal, which were individually named. The Griff Hollows Canal, which was not physically connected to the other six, linked the colliery at Griff to the Coventry Canal. About one mile to the south, the main system of canals connected the Coventry Canal to the Arbury Estate, and were used to transport coal and carry produce around the estate. The entire system was approximately 6 miles long, and included thirteen locks, each 40 feet by 6 feet. One unusual feature was the Triple Lock, which had a 'Y' shaped chamber, with two separate entrances from above, leading to different branches. The system contained the earliest example of a canal reservoir – Seeswood Pool. It dates from 1764 and is extant but no longer used for canal purposes.

Hall Pool (Wikipedia David Stowell)

After Newdigate's death in 1806, at the age of 88, the estate system continued to be used until 1812, but then it gradually became disused, and by 1819 the upper levels were no longer navigable. From that date the locks were replaced by weirs, and only the Communication Canal of 1771 linking a wharf near a worsted factory to the Coventry Canal remained navigable.

The Griff Hollows Canal was quite separate to the main system. Designed to carry coal to the Coventry Canal from the Griff Hollows wharf, which was connected to collieries by a tramroad, construction began in 1785, and it was opened on 29 July 1787. It was 1,320 yards long, and was all on one level. It remained in commercial

use until the colliery closed in 1961. It continued to be navigable until 1973, when it was severed by the construction of the A444 road. The entrance can still be seen, and it still supplies water to the Coventry Canal.

Statement of Significance:

The system is of interest as an expression of early canal vision which influenced later engineers and Seeswood Pool is the earliest extant canal reservoir. Should there be any buried remains of the locks, in particular the triple lock, they would be of considerable interest and would increase the Heritage Value accordingly .

Elements of considerable significance: Seeswood Pool

Elements of some significance: Any remains of locks

Main References: P-T RCHS 1970

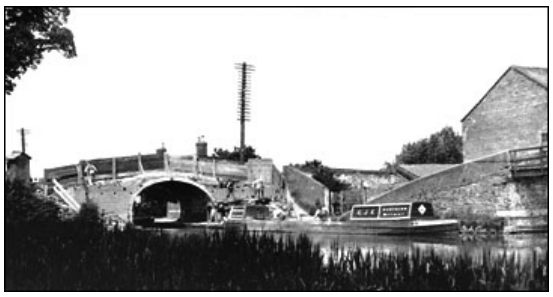
Websites: Wikipedia

Waterway: **Newport Pagnell Canal**

Status: Abandoned and partially converted to Railway
Overall Heritage Value: 0
Owner/operator: various
Line Grand Junction Canal at Linford to Newport Pagnell 1.25 miles
Date of opening: 1817
Closed: 1864
Statutory designations: none

Summary Description and History:

Surveyed by Benjamin Bevan for an Act of 1814, the 14 mile long Newport Pagnell Canal had 7 narrow locks and a stop lock at Linford where it connected with the Grand Junction Canal. It did fairly well but in 1863 was sold to the proposed Newport Pagnell Railway and closed the following year, the railway being partially built on it.



(Left) Linford Wharf junction with the Newport Canal Branch.
(Right) The Wharf at Great Linford today. The canal passed between the building and the wall on the left. (Wikipedia Mick Finn)

At Newport Pagnell, the railway re-used several of the warehouses and most of Shipley Wharf. The Grade I Tickford Bridge (1125464) in Newport Pagnell, though not on the Canal , was designed in 1810 by Henry Provis the engineer to the Grand Junction Canal and cast in iron by Walkers of Rotherham.

Statement of Significance:

Elements of considerable significance: none

Elements of some significance: none

Main References: P-T/RR

Websites: Wikipedia

Waterway: **North Walsham & Dilham Canal**

Status: Abandoned canal partly watered
Overall Heritage Value: 1
Owner/operator: North Walsham Canal Company and Old Canal Company
Line:
Swafield Bridge near North Walsham to Smallburgh on River Ant 9 miles
Date of opening: 1826
Closed: 1912 onwards
Statutory designations: Grade II 2

Summary Description and History:

Built under an Act of 1810 but not opened until 1826, the waterway is independent of the River Ant and is therefore a true canal. Designed by John Millington it had six locks capable of taking Norfolk wherries. It was not a financial success and obtained an Act empowering the company to sell the waterway to a private owner, Edward Press. In 1893, the upper 1.4 miles (2.3 km) from Swafield lock to Antingham were abandoned, but traffic figures for 1898 show that 6,386 tons arrived at wharves on the canal. When Press died the canal was bought by the General Estates Company in 1907 and then by G Cubitt and G Walker in 1921, who immediately formed the North Walsham Canal Co Ltd, which bought the canal for the £1,500 they had paid. Some attempts were made to dredge the channel below Swafield locks in the 1920s, but the section above Swafield Bridge was abandoned in 1927 and has reverted to farmland. The wherry "Ella" made the final trading journey on the canal from Bacton Staithe in 1934.

(Left) Briggate Bridge lock (Wikipedia David Robertson): (Right) Bradfield Bridge (IoE 222769 Neil Hartley)

The canal was never nationalized and continued to belong to the North Walsham Canal Company. The canal is only navigable for the first 2 miles (3.2 km) but there are moves to restore the canal and at present there is work going on to restore the bottom lock. The East Anglian Waterways Association with help from the North Walsham and Dilham Canal Trust, has held regular work parties at Honing, Briggate and Ebridge Locks.

Further north, both Bradfield Bridge (1204308) and the bridge over the canal at Bacton Wood Mill (1049148) are grade II listed structures. Some 2.25 miles (3.62 km) of the route, consisting of the pound above Bacton Wood lock, the lock itself, the pound below it and Ebridge Lock, were sold to the Old Canal Company in 2009, who intend to re-water this section. Work has concentrated on the lock at Bacton Mill.

Statement of Significance:

The canal remains are of some significance.

Elements of considerable significance: none

Elements of some significance: canal locks and bridges

Main References: P-T/RR

Websites: Wikipedia North Walsham & Dilham Canal Trust

Waterway: **Nottingham & Beeston Canal (& Nottingham Canal)**

Status: CRT (Nottingham Canal mostly derelict)
Overall Heritage Value: 3 M (BWB)
Owner/operator: CRT (various)
Line:
Trent at Nottingham to Beeston Lock 2.5 miles
(Nottingham Canal formerly
Langley Mill to Nottingham 15 miles)
Date of opening: 1796
Closed: 1936 Langley Mill to Lenton
Statutory designations: Grade II 9

Summary Description and History:

Surveyed by Jessop and James Green with Benjamin Outram as engineer the Canal Act was passed in 1792 and it opened in 1796 with 20 broad locks and several minor branches. Traffic declined in the face of railway competition and it was sold in 1855 to the Ambergate Railway and passed to the Great Northern Railway in 1861 who maintained it until the LNER assumed responsibility in1923. Traffic ceased above Lenton in 1928 and the LNER closed that section in 1936. The short section through Nottingham remained busy and is now called the Nottingham & Beeston Canal. The rest of the canal was derelict and much of it has disappeared with some isolated sections being recognised as nature reserves or for fishing.

Moorgreen Reservoir dates from 1794 and is one of the CRT's earliest reservoirs. Its dam is 12 metres high and 230 metres long.

(Left) Moorgreen Reservoir (A Nicholson, 2004): (Right) Swansea Bridge Trowell (IoE 429788John Lewis)

Statement of Significance:

Some structures on the derelict section are designated Grade ll such as Swansea Bridge (1248333) Grade II built in 1793–95 with wooden keep gates nearby there

are the original stone-built lock-keepers cottages,1&2 Swansea Cottages, Trowell, built 1794–95.

In Nottingham itself Fellows Morton & Clayton Wharf with its stables, crane and warehouse with covered boat dock and the imposing British Waterways warehouse (1255261) at the former Castle Wharf depot are of note. The FMC Offices (1271432) are now a public house.

(Left) Castle Wharf Warehouse, Nottingham (IoE 459075 Patrick Banister)
(Above) Turnover Bridge, London Road Nottingham (1254711). (IoE 457448, Ian Shapeero)

Elements of considerable significance: Former FMC Wharf and British Waterways' depot warehouse at Castle Wharf, Moorgreen Reservoir

Elements of some significance: several bridges such as the turnover bridge at Nottingham

Main References: **P-T/BR/RE/RR**

2006 Chell, B. *Nottingham Canal: A History and Guide* History Press.

Websites: CRT Wikipedia

Waterway: **Nutbrook Canal**

Status:	Abandoned	
Overall Heritage Value:	1	
Owner/operator:	various	
Line	Shipley Wharf to Erewash canal at Stanton	4.5 miles
Date of opening:	1796	
Closed:	1907 and 1949	
Statutory designations:	Grade II	1

Summary Description and History:

Originally promoted as a private canal then built under an Act of 1793 with William Jessop surveyor and Benjamin Outram engineer. It was a broad waterway 4.5 miles long with 13 locks and a reservoir at Shipley. Traffic declined with the railway competition and the company was insolvent by 1895 and the only traffic was at the Stanton end serving the ironworks. The Stanton Ironworks acquired the bulk of the canal in 1946 to preserve its water supply but after 1949 ceased running its own boats and piped the water. A section of the Nutbrook canal is still used today, not for boats but by anglers.

(Left) Old Furnace Lock 2006 (Wikipedia Tina Cordon): (Right) Colliery Road Bridge (IoE 78829 Peter Holt)

Paul's Arm Bridge (IoE 78830 Roy Millett)

Statement of Significance:

Two original bridges connected with the early Shipley Reservoir are located at its southern end though the reservoir itself was greatly altered after it ceased to supply the canal. Colliery Road Bridge (1158460) is a single-arched grade II listed structure

built of sandstone and red brick, while Paul's Arm Bridge is of a similar construction but has two arches.

Elements of considerable significance: none

Elements of some significance: bridges at Shipley, cascaded locks, the early Shipley Reservoir is much altered to a lake.

Main References: P-T/RR/RE

Websites: Wikipedia

Waterway: **Oakham Canal**

Status:	Abandoned, mostly in-filled	
Overall Heritage Value:	1	
Owner/operator:	various	
Line:	Melton Mowbray to Oakham	15 miles
Date of opening:	1802	
Closed:	1847	
Statutory designations:	Grade II 1	

Summary Description and History:

Built under an Act of 1793 and surveyed by Robert Whitworth with Christopher Staveley initially engineer then William Dunn the canal had 19 broad locks rising to the summit at Oakham. It opened in 1802, but it was never a financial success, and it suffered from the lack of an adequate water supply. It closed after 45 years, when it was bought by the Midland Railway to allow the Syston and Peterborough Railway to be built, partly along its course. Most of it is in-filled, although much of its route can still be seen in the landscape, and there are short sections which still hold water.

(Left) Burley Road Bridge watered section (Wikipedia Kate Jewell):
(Right) Warehouse converted to stables, Market Overton (IoE 186690 Jake Young)

Statement of Significance:

Little survives of significance as much of the line was used by the railway. Some warehouses and wharf buildings (1073194) have been converted while there are ideas for fuller community use of the watered section near Oakham which is currently only used for fishing. The warehouse at Oakham has been converted into a theatre and much altered.

Elements of considerable significance: none

Elements of some significance: wharf buildings

Main References: **P-T/RE/RR**

1984 Tew, D. *The Melton to Oakham Canal* Sycamore Press.

Websites: Wikipedia http://www.meltonwaterways.org.uk

Waterway: **River Great Ouse** (Bedford)

Status: river navigation fully restored, part tidal
Overall Heritage Value: 2
Owner/operator: EA (since 1996)
Line:

Main Channel Bedford to Kings Lyn	74 miles
Old course of river Earith to Denver	31 miles

Date of opening: ancient times
Statutory designations:

Summary Description and History:

The River Great Ouse has been an important navigable link from the Wash to the interior hinterland since ancient times, and there are certainly riparian remains of Danish occupation, but the history of the navigation of its many channels, secondary channels and Fenland tributary links is extremely convoluted, as have been the proprietorial rights. Bradshaw details that the Main Channel, via the Hundred Foot River constructed in 1650, is tidal up to Earith, while the separately navigable Old course of river which serves Ely is maintained at a constant level by the Denver Sluice. For centuries there were conflicts of interests between navigation and drainage and as until modern times there was no single river authority these conflicts were seldom satisfactorily resolved – to the detriment of navigation.

(Left) Great Ouse at Huntingdon (Wikipedia TheGrappler)
(Right) The River upstream from Brownhills Staunch, Over. (Wikipedia William M Connolley)

Dorothy Summers' book (1973) chronicles in commendable detail its history prior to 1617 when a patent, which passed through various hands, was obtained to improve rivers in the region over a 21 year period but it was to be a further 70 years that decent navigable access was achieved to Bedford as the construction of the Hundred Foot River, largely for drainage purposes, had caused numerous silting problems. These problems were to persist throughout the 18th century despite the construction of several sluices and staunches and were even affecting the lower reaches of the river channels down to Kings Lyn and in 1795 the Eau Brink Cut Bill was passed to improve scour by providing a 2.5 mile new cut. The increase in traffic in the early 19th century prompted further improvements to the river and these improvements

then accelerated especially in a campaign of rebuilding sluices, staunches and pound locks between 1832 and 1845. However competition from inland canals such as the Grand Junction and then railways were seriously to affect trade in the second half of the century and the maintenance costs of the upper river soon exceeded revenue. By the end of the century there were moves to declare the river a derelict canal. Despite improvements to the lower river and estuary with training walls which indeed continued until the later 20th century the upper reaches and locks became derelict. However the formation of the Great Ouse Restoration Society in 1951to promote leisure boating succeed over the next 25 years in repairing the locks and full navigation to Bedford was achieved in 1978 with the rebuilding of Castle Mills Lock.

Statement of Significance:

So many of the navigational features of the river such as Lock No 9 at St Neots have been rebuilt in recent time that there is little of heritage interest other than historic bridges. Similarly the imfamous Denver Sluice cause of so much controversy over the years has been rebuilt several times.

(Left) Denver Sluice (Wikipedia Bob Jones)
(Right) Main Channel and lock No 9 St Neots (Geograph Eirian Evans)

Elements of considerable significance: Great Barford Bridge, Huntingdon Bridge

Elements of some significance: Denver Sluice

Main References: BR/P-T/RE

1973 Dorothy Summers *The Great Ouse* David & Charles

Websites: Wikipedia

Waterway: **River Ouse** (Sussex)

Status:	Abandoned navigation	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line: Lewes to Upper Ryelands Bridge		22 miles
Date of opening:	1812	
Closed:	1868	
Statutory designations:	Grade II	1

Summary Description and History:

The tidal River Ouse was navigable for centuries up to Lewes and even to Barcombe Mill and in1787 it was proposed to extend navigation some 22 miles above Lewes and William Jessop was engaged to survey the river with a view to extending navigation right up to Slaugham.

It was subsequently improved for navigation under an Act of 1790 work but proceeded slowly until William Smith was engaged as engineer in 1808 and it opened with 19 locks (48 feet x 13 feet) in 1818. It succumbed to railway competition and all trade above Lewes had ceased by 1868 while some commercial traffic continued on the river below Lewes until the 1950s.

Today, the remains of most of the old locks are still visible, although all are now slowly deteriorating. The Sussex Ouse Restoration Trust is promoting renovating the navigation but plans are not very far advanced.

Disused swing bridge below Lewes (IoE 165295 Janet Roworth)

Statement of Significance:

There is little of significance over than the disused locks and the disused Southease swing bridge (1393389) which is on the lower Ouse below Lewes was built in the 1880s, is the second bridge on the site and though the swing mechaniScheduled Monument remains, it has not been opened since 1967.

Elements of considerable significance: none

Elements of some significance: disused locks swing bridge (now fixed)

Main References: P-T/RE

Websites: Wikipedia Sussex Ouse Restoration Trust

Waterway:	**River Ouse** (Yorkshire) including **Ure Navigation and Ripon Canal**	
Status:	CRT restored waterway	
Overall Heritage Value:	3	
Owner/operator:	CRT	
Line:		
River Ouse from Ure to Trent		52 miles
Ure Navigation and Ripon Canal		10 miles
Date of opening:	Ouse (ancient),	1757(lower)
		1771(upper)
	Ure Navigation	1773
	Ripon Canal	1773
Statutory designations:	Grade II	8

Summary Description and History:

The River Ouse has always been navigated to York historically but from the 17th century required improvement for larger vessels. This was achieved in 1757 when a lock at Naburn considerably improved the river above that point. The lock was doubled in the 19th century when a second, larger, lock was constructed beside the old one in 1888 to allow vessels 150 feet by15 feet to reach York.

(Left) Naburn Locks and weir: (Right) Naburn Locks and Banqueting House (IoE 326198 John Turner)

In 1823 the Ouse Navigation Commissioners built a Banqueting House for their office and meetings and a small complex of a forge and workshops developed.

Banqueting House (IoE 326197 John Turner)

In York itself the Ouse is crossed by several historic bridges and is joined by the Foss Navigation. The River Ouse above York was improved under Acts of 1767, with works following Smeaton's advice for a lock at Linton and completed in 1771.

Linton Weir and Lock before restoration. (IoE 332108, 332107 Malcolm Harwood)

The restored Linton Lock (www.penninewaterways.co.uk)

The 1767 Acts also authorised improvements to the River Ure and the construction of the 2 mile Ripon Canal from that river involving the use of five locks. These works were undertaken by William Jessop under Smeaton's supervision and were completed in 1773.

(Left) Milby Lock on the River Ure (Wikipedia Paul Allison): (Right) Oxclose Lock entrance to the Ripon Canal (www.penninewaterways.co.uk)

Traffic below York was prosperous though affected by the railways from the 1840s and in 1886 a new lock, alongside the old one, was opened at Naburn (1316289). However by 1918 trade had fallen away and the river was in a poor way. Above York

traffic also declined with the coming of the railways and indeed the Ure Navigation and Ripon Canal were sold to the Leeds & Thirsk Raiway in 1847 and passed to NER hands in 1854.

Traffic continued into the 20th century long enough to attract pleasure boat interests to restore navigation to Ripon. These waterways are now under CRT management.

Statement of Significance:

The River Commissioners built themselves an office and Banqueting House (1167224) at Naburn and the pair of locks. 1757 and 1887-89. John Fowler, engineer and Nelson and Co., contractors of New Lock, for Ouse Navigation. The Locks have a central island with pointed end and cast iron swing bridges on each bank. The listed rank of offices and workshops contain a restored forge and there is also an historic crane and later lock keepers cottages.

There are several historic bridges over the Ouse such as in York. The restoration of Linton Lock (1151005) which maintained navigation to the upper reaches has attracted considerable State and Lottery funding. The Ripon Canal (2¼ miles) has 2 locks, 2 historic bridges and a sandstone warehouse (c1780) with associated buildings and walls at the basin (1149380).

(Left) Warehouse and wharf managers house, Ripon Canal (www.penninewaterways.co.uk)
(Right)Lock no 3 Ripon Canal (IoE Tim Nichols)

There is a 2 storey, 3 bay canal cottage (1173807) at Lock no 3, which has Gothic door and windows and some architectural heritage value.

Elements of considerable significance: Naburn Locks and Banqueting House with cast iron footbridges, offices, workshops and forge. Linton Lock

Elements of some significance: Crane at Naburn Lock, Lock House, lock, bridges and warehouse on Ripon Canal

Main References: BR/P-T/RE

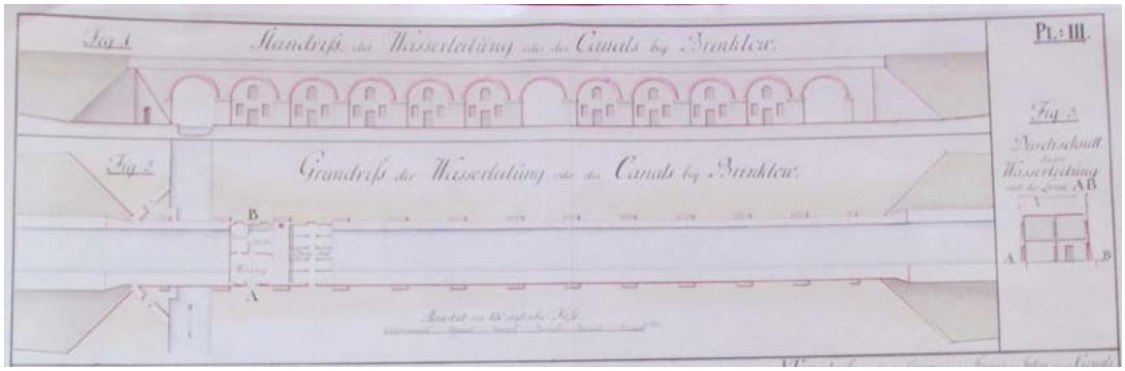
Websites: CRT Wikipedia

Waterway:	**Oxford Canal**	
Status:	CRT waterway	
Overall Heritage Value:	4 (BW:H)	
Owner/operator:	CRT	
Line:		
Thames at Oxford to	Coventry Canal	91 miles (originally)
Date of opening:	1790	
Statutory designations:	Scheduled Monument	1
	Grade II*	1
	Grade II	95

Summary Description and History:

The Oxford Canal was constructed in several stages over a period of more than twenty years. Authorised by an Act in 1769 work started with Brindley as engineer but Simcock took over on Brindley's death in 1772 when some 10 miles of contour canal had been built.

Oxford Canal from Napton-on-the-Hill (Wikipedia G-Man)



Brindley's Brinklow Aqueduct

Where the canal passes Brinklow it had to cross a valley and James Brindley designed an aqueduct to achieve this. The aqueduct has embankments both ends, runs for around 450 yards and is set on 12 brick and stone arches each spanning 22 feet. This aqueduct attracted some attention at the time as Brindley proposed houses

and stabling in the arches and hence it was recorded by a German engineer shortly after it was built. Nearly all of the arches have been filled in.

By 1774 the canal had reached Napton, but the company was already running out of money. In 1775, a second Act was passed allowing the company to raise more funds. Construction soon started again and by 1778 the canal had reached Banbury. Financial problems meant that work on the final stretch to Oxford did not begin until 1786.

(Left) Tilting Bridge Adderbury (IoE 243821 J. B. Moseley)
(Right) Somerton Lock (IoE 422382 Alistair F Nisbet)

The stretch of the canal from Banbury to Oxford was built as cheaply as possible. Many economy measures were used. Wherever possible, wooden lift or swing bridges were built instead of more expensive brick ones.

Deep locks were used wherever possible, with single gates at both ends instead of double gates. The Clattercote and Wormleighton reservoirs were built in 1787 and 1788 respectively are amongst the earliest canal reservoirs still in use. These were supplemented by the larger Boddington Reservoir in 1820.

When finally opened in 1790 with 43 narrow locks the Oxford was to be the supreme example of a pioneer contour canal, almost circulating Wormleighton Hill, and 50 years later following surveys by Marc Brunel and Charles Vignoles it was shortened from 91 to 77 miles.

(Left) Rugby Aqueduct c.1831 (IoE 432184 Brian W Sherwin):
(Right)Old Newbold Tunnel (Wikipedia G-Man)

William Cubitt was consultant from the scheme and two old tunnels (1365031) were dispensed with, the line straightened by embankments and cuttings leaving sections of old route to become branches.

It was profitable for most of its life and never came under railway control or was not even amalgamated into the Grand Union in the 1930s. It has therefore survived to become a very popular cruising waterway under British Waterways. Tooley's Boatyard Banbury is enshrined in recent waterways lore featuring prominently in L. T C Rolt's *Narrow Boat* (1944).

Statement of Significance:

The British Waterway's assessment in 1999 describes the bucolic southern section of the Oxford as having stone bridges and locks and numerous wooden lift-bridges which have high heritage value. A number of canal cottages remain and form good groups (eg at King's Sutton Lock). Frederick Wood left designs for Oxford Canal cottages – one built example survives at Duke's Lock (1370051). Hawkesbury Junction, Hillmorton Yard and Tooley's Yard (1006323) and Braunston Turn are important historic sites with groups of buildings and structures. The later northern section is less scenically attractive and has equipment like the iron towpath bridges and the paired locks at Hillmorton, dating from the 1830s. A variety of cottages survives throughout and most of these have high contributory value. Canal House (1046618) the original canal company headquarters is Grade II* but now part of St Peter's College.

(Left) Tooley's Boatyard Banbury 2009 (Wikipedia Jim)
(Right) Wyaston House, Oxford Canal Company (1797) (IoE 245144 Chris Tresise)

Elements of considerable significance: Hawkesbury Junction (with Coventry Canal). Hillmorton Yard. Tooley's Yard. Wooden lift-bridges on southern section. Canal House

Elements of some significance: Cottages in different styles – some reflecting local vernacular, others designed by an engineer, others typical of mid-late C19 general building practices, Newbold Tunnel (1249971 and 1233660) The Clattercote and Wormleighton reservoirs.

Main References: BR/P-T/RE

1976 Compton, H. *The Oxford Canal* David & Charles

Websites: CRT Wikipedia

Waterway: **Par Canal**

Status: Abandoned (towpath used for tramway)
Overall Heritage Value: 0
Owner/operator: various
Line: Par Harbour to Pontsmill 2 miles
Date of opening: 1847
Statutory designations: none

Summary Description and History:

Joseph Austen (later Joseph Treffry) began construction of a harbour at Par in 1829 and the Par Canal was constructed 1847 to serve the harbour. There was an entrance lock to the canal at the harbour, and then two more between there and it terminated at Pontsmill at the base of the Fowey Consols incline plane tramroad. The canal closed in 1873 and the railway extended along the towpath.

Par Harbour (Wikipedia Jeff Sheppard)

Statement of Significance:

The remains of the canal are of little significance (but is there still an iron tramway bridge at Pontsmill)

Elements of considerable significance: none

Elements of some significance: none

Main References: P-T

Websites: Wikipedia

Waterway:	**River Parrett, Ilchester Navigation** and **Westport Canal**

Status:	Abandoned waterway	
Overall Heritage Value:	3	
Owner/operator:	EA?	
Line:		
River Parrett Bridgewater to Thorney		15 miles
Ilchester Navigation		8 miles
Westport Canal		2 miles
Date of opening:	1840	Disused by 1900
Statutory designations:	Grade II*	1
	Grade II	10

Summary Description and History:

The tidal River Parrett was navigable for centuries to Langport and beyond when there was enough water and in the late 18th century efforts were made to improve the tributary rivers beyond but with little success. The Parrett Navigation Act of 1836 allowed the proprietors to raise £10,500 in shares and £3,300 by mortgage, with which to make improvements to the river from Burrow Bridge to Langport, to reconstruct the restrictive bridge at Langport, and to continue the improvements as far as Thorney. Under the Act William Gravatt as engineer improved these rivers with four locks and a half lock and the two mile long canal to Westport where a basin and warehouse were built by 1840.

The Ivelchester and Langport Navigation was a scheme to make the River Ivel (now called the River Yeo) from Langport to Ilchester. Work started in 1795, but the scheme was effectively bankrupt by 1797, construction of the locks was never completed, and little remains of the navigation.

The Westport Canal was built in the late 1830s to link Westport and Langport and was part of a larger scheme involving improvements to the River Parrett. The route from Langport followed the River Parrett to its junction with the River Isle. Here a lock was built and about one mile further upstream, the 2.3-mile canal turned off towards Westport, where five wharfs and a basin were built. A half lock at the junction protected the canal from high river levels. Engineered by William Gravatt the project was completed in 1840, and was initially profitable. It remained in use until the 1870s, but closed when the Somerset Drainage Commissioners took over control of the River Parrett. Despite a petition against closure by local people, the Commissioners ruled that navigation of the canal must cease due to their interpretation of the Act which gave them control of it, leaving the canal to serve as a drainage channel since 1878. The channel has survived, due to its drainage function, and many of the structures associated with the canal survive including several bridges, a warehouse and the weired lock at Midelney. The canal still contains

water, and can be navigated by light craft such as canoes, which can be portaged at Midelney lock. Some refurbishment of the canal was carried out by Wessex Water Authority in the 1970s There is local interest in improving the canal as an amenity, and possibly the restoration of navigation for small boats.

Statement of Significance:

The River Parrett is crossed by several bridges on interest including the Grade II* Telescopic Bridge, Bridgwater (1297139) built in 1871 to the design of Sir Francis Fox which had one fixed section and two moveable sections. Originally steampowered, to open it for ships to pass the first moveable section was rolled to the side and then the second was pulled back into the space vacated by the first.

(Left) Midelney lock (Wikipedia Bob1960evens)
(Above) Telescopic Bridge 2007 (Wikipedia Geof Sheppard)

Other bridges rebuilt in the 19th century to allow for navigation are Burrowbridge (1826), the Grade II Great Bow Bridge of 1841 at Langport (1277510) and Town Bridge Bridgwater 1883.

(Left) Burrow Bridge (IoE 271175 Michael Bass)
(Centre) Great Bow Bridge (Wikipedia Martin Bodman)
(Right) Town Bridge, Bridgwater (IoE 374010 John Bjergfelt)

Thorney Half Lock is a most unusual arrangement with the River Parrett divided into three channels – a mill leat, a central weir and the half lock. Despite later modifications made when navigation was abandoned, the site is of considerable significance as evidence of a phase of navigation improvements that has largely disappeared.

There are several designated structures on the former Westport Canal including a former Warehouse (1236448) at the canal basin and four bridges.

(Left) Warehouse Westport Canal basin (IoE 264334 Michael Perry)
(Right) Bridge over Westport Canal, Curry Rivel (IoE 431306 John H. Sparkes)

Elements of considerable significance: Thorney Half Lock, Telescopic bridge, Bridgwater.

Thorney Half-lock, River Parret (Geograph Martin Bodman)

Elements of some significance: Town Bridge Bridgwater, Burrowbridge, Great Bow Bridge Westport basin Warehouses (1236448) and cottages (1222018) and four Westport Canal bridges (1236420, 1249486 1345913 and 1345946).

Main References: BR/P-T/RR

1969 Lewis et al 'Flashlocks on English Waterways :a Survey' *Industrial Archaeology* 1969 pp 235-237

Websites: Wikipedia contains detailed articles on all three waterways

Waterway: **Peak Forest Canal**

Status:	CRT waterway	
Overall Heritage Value:	4 H(BWB)	
Owner/operator:	CRT	
Line Bugsworth basin to Ashton Canal		15 miles
Date of opening:	1805	
Statutory designations:	Scheduled Monument	2
	Grade I	1
	Grade II*	1
	Grade II	47

Summary Description and History:

Authorised by an Act of 1794 the canal links the Ashton Canal at Dukinfield with the historically important Bugsworth Basin while the Macclesfield joins the Peak Forest Canal at Marple.

Samuel Oldknow, the industrialist, was the main promoter of this canal which was built to carry limestone and Benjamin Outram was the engineer. Contractors for the work were Jones & Fox (part), Robert Fulton and Charles McNiven (c1794), William Anderson and William Broadhead (Marple Aqueduct).

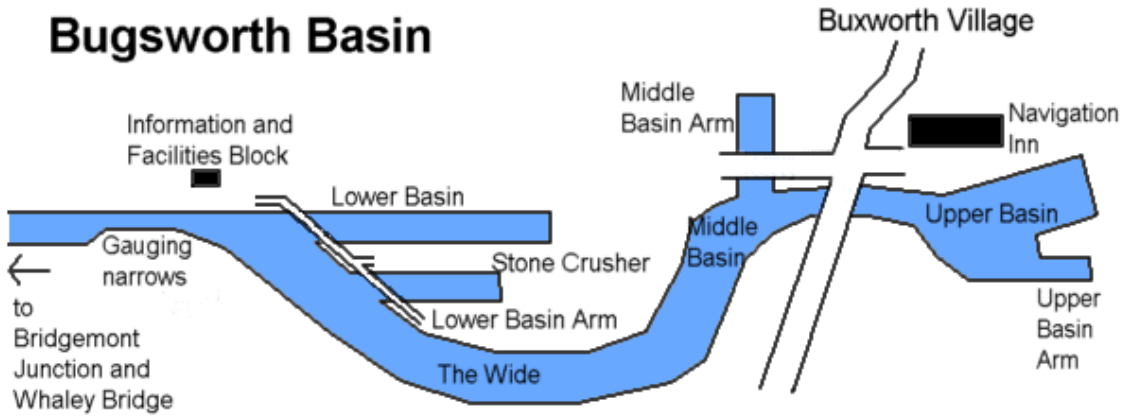
(Left) The Peak Forest Canal joins the Ashton Canal at Dukinfield across the Dukinfield Aqueduct (www.penninewaterways.co.uk)
(Right) Samuel Oldknow's Warehouse, lock 10 (www.penninewaterways.co.uk)

The canal was completed in 1801 except for Marple Locks which were by-passed by a rope hauled tramway until 1805 when the two level reaches were joined by a flight of 16 locks. The Comb Reservoir built in 1806 was one of the largest of its time.

With the coming of the railways, the canal began to lose its business and in the 1920s the Peak Forest Tramway and Bugsworth Basin closed. Later, the lower level of the canal and Marple locks fell into disuse, to the extent that by the early 1960s the lower part of the canal was impassable. In the late 1960s and early 1970s, the Peak Forest

Canal Society and the Inland Waterways Association campaigned for the restoration of the Peak Forest and Ashton Canals, and they reopened on 1 April 1974.

Bugsworth Basin remained derelict for much longer. It was finally re-opened to navigation in 2003 after professional restoration work was undertaken by British Waterways.



Middle Basin and Arm and Upper Basin and Arm (www.penninewaterways.co.uk)

Statement of Significance:

The British Waterways assessment of 1999 notes that the canal is typified by tough-looking stone locks and bridges, with the greatest concentration, and the best group of buildings, at Marple Locks, a flight of 16.

There is a superb, soaring roving bridge at Dukinfield Junction and a major masonry aqueduct rising high above the R Goyt (1242267) at Marple which is Grade I.

Roving bridge at Dukinfield Junction (www.penninewaterways.co.uk)

Goyt Aqueduct; Aquatint Joseph Parry, 1803 and 2009 (Wikipedia Clem Rutter)

Whaley Bridge warehouse (IoE 81879 Philip B Wilson)

At Whaley Bridge there is an important rail/canal transhipment warehouse (1088081) and Bugsworth Basin (10213840 is a site of great industrial archaeological interest, with canal basins, tramway remains, wharfinger's house and stables and associated lime kilns.

The Combs Reservoir was the third largest canal reservoir of its time in England when it was built in 1806 and it is still in use by CRT.

Elements of considerable significance: Whaley Bridge transhipment warehouse, Bugsworth Basin, Marple Locks and Goyt Aqueduct (1001954), Marple Junction

Elements of some significance: Woodley Tunnel (1117083), Hyde Tunnel, Horse Tunnel (1249858) Whaley Bridge, Tame Aqueduct (1068000) Dukinfield

(Left) The Combs Reservoir:

(Right) Woodley Tunnel (IoE 442245 Alan Fleming)

(Left) Horse tunnel (IoE 432085 Philip B Wilson):

(Right) Tame Aqueduct (IoE 212468 Brian Lomas)

Main References: BR/P-T/RE

1989 Ripley, D. *The Peak Forest Tramway including the Peak Forest Canal* Oakwood Press

Websites: CRT Wikipedia

The Pennine Waterways website includes a virtual tour of the whole length of the canal.

Waterway: **Pocklington Canal**

Status:	CRT waterway	
Overall Heritage Value:	3 M (BWB)	
Owner/operator:		CRT
Line:		
Pocklington to River Derwent (Humber)		9.5 miles
Date of opening:	1818	
Statutory designations:	Grade II	13

Summary Description and History:

Authorised by an Act of 1815 this broad canal was surveyed and engineered by George Leather. It opened in 1818 with 9 deep locks (averaging 11 feet) in its 9.5 miles length. There were two short branches to Melborne and Bielby and its entrance lock was into the tidal River Derwent at East Cottingwith (1162005).

Cottingwith Lock (IoE 167656 Janet Roworth)

The Pocklington is one of the few canals in Britain which was completed for close to the original estimated cost, costing only £32,695. Coal, lime, fertiliser and industrial goods were carried to Pocklington, and agricultural produce was sent out to the West Riding.

It was taken over by the York & North Midlands Railway in 1848, after just thirty years of operation and traffic declined. The canal fell into disuse c.1932 and became unnavigable. Despite plans in the 1950s to turn it into a dumping ground for chalk sludge, the canal survived, thanks to an active restoration group. In 1969 the Pocklington Canal Amenity Society was formed. Restoration began in 1971 with the repair of the entrance lock near East Cottingwith. In 1980, the Shell Oil Company funded a new set of gates for Thornton Lock, under an awards scheme. Further assistance was provided in 1986 when Pocklington Canal Amenity Society provided two swing bridges and East Yorkshire Borough Council funded the work to fit them. The canal as far as the Melbourne Arm was formally opened on 19 July 1987 and restoration is still ongoing. About half the canal has currently been restored. The section from the River Derwent to the Melbourne Arm is navigable, and four of the remaining seven locks have been renovated. Work started in 2015 to extend navigation another 2 miles for completion in time for the bicentenary of the canal in 2018.

Statement of Significance:

There is one warehouse (c1820) at canal head, near Pocklington and a number of graceful bridges, with curving walls and buttresses, designed by Leather.

These include Church Bridge (1346430), Walbut Lock and Bridge (1083859 , 1309793), Gardham Lock and swing bridge (1393980) and Top Lock and Canal Head (1084122). A fine example of CRT working with the local trust to restore the waterway as an amenity.

(Left) Church Bridge (IoE 167663 Janet Roworth): (Right) Walbut Lock and Bridge (IoE 167681 Les Waby)

Elements of considerable significance: none

Elements of some significance: Leather's fine road /accommodation bridges Rural warehouse (now converted) and lock keeper's house at canal head

Main References: BR/P-T

(ND) *The Pocklington Canal – A Guide to the Canal*. The Pocklington Canal Amenity Society.

Websites: CRT Wikipedia Pocklington Canal Amenity Society

Waterway:	**Portsmouth & Arundel Canal** (inland sections)

Status:	Abandoned (parts built over)	
Overall Heritage Value:	2	
Owner/operator:	various	
Line:		
	Ford to Hunston	11miles
	Chichester branch	4.5 miles
	Portsea branch	2.5 miles
Date of opening:	1823	
	Disused to Hunston c 1850 closed 1896	
Statutory designations:	Grade II	lock

Summary Description and History:

The Portsmouth & Arundel Canal was the last link in the London to Portsmouth barge route and comprised a canal section from River Arun at Ford to Birdham on Chichester Harbour with a branch to Chichester, dredged channels to Portsea Island then a short Portsea branch to Portsmouth. Under an Act of 1817 construction started in 1818 and the canal was finished in 1823, at a cost of £170,000 the resident engineer being James Hollinsworth. To supply the canal with water a pumping engine was installed at Ford to pump water from the Arun and in order to allow the passage of masted ships iron swing bridges were fitted to the Chichester and Portsea sections.

The canal was unable to compete with the sea routes and by 1832 the canal company was being forced to do the carrying itself. By 1847 the canal, with the exception of the Chichester arm, had ceased to be navigable. In 1845 parts of the Portsea section were sold to the London and Brighton railway company with another section being sold to the company in 1851 and the railway uses parts of the canal bed. The Chichester arm was transferred to the Chichester corporation in 1892, the same year in which the canal company was wound up and this section is still navigable. Some visible remains of the Portsea Section still existed in 2011.

The remains of the sea lock of the Portsea section (Wikipedia geni)

The remains of the lock into Langstone Harbour are also still in evidence. The lock has been a conservation area since 1977.

The ownership of the Chichester arm ended up in 1957 with West Sussex county council and has subsequently been leased to restoration trusts – latterly the Chichester Ship Canal Trust which with WRG assistance has restored much of the waterway to navigation.

Statement of Significance:

Remnants of the canal are of some significance as evidence of an over ambitious canal route completed after its *raison d'etre* had gone. In 1977 there was a DAMHB Panel recommendation to schedule the iron Pontz Bridge which has since been restored. The masonry bridge 01237839) at Yapton is Grade II.

(Left) Poyntz Bridge (Chichester Ship Canal Trust):

(Right) Yapton Bridge (IoE 415150 Paul Vincent)

Elements of considerable significance: Pontz Bridge

Elements of some significance: Bridge at Yapton (1237839), Langstone lock

Main References: P-T/RR

1990 Vine, P.A.L. *Hampshire Waterways* Middleton Press

2007 Vine, P.A.L. *London's Lost Route to Portsmouth* Phillimore

Websites: Wikipedia

Waterway: **Rochdale Canal**

Status:	CRT Waterway	
Overall Heritage Value:	4	
Owner/operator:	CRT	
Line: Manchester to Sowerby Bridge		32 miles
Date of opening:	1804	
Statutory designations:	Scheduled Monument	1
	Grade II*	1
	Grade II	106

Summary Description and History:

Authorised in 1794 the Rochdale Canal was the first of the trans-Pennine canals to be completed and its 92 broad locks via the Calder & Hebble and Bridgewater Canal allowed barges long distance carrying between Hull and the Mersey. Rennie and Jessop were involved in its survey with the William Crosleys, father and son, the engineers. There were two short tunnels at either end, a four arched aqueduct over the Calder at Hebden Bridge and three (later eight) reservoirs, the earlier ones dating from the 1790s.

Longlees Lock, at the Yorkshire end of the summit pound. (www.penninewaterways.co.uk)

The summit pound is 600 feet above sea level, Blackstone Edge Reservoir, covering 50 acres and Chelburn Reservoir, covering 16 acres, were the first two reservoirs built to supply the water for all these locks. They were completed in 1798 and Hollingworth Lake covering 130 acres was finished in 1800. It was lower than the summit pound, and so a steam pumping engine was installed to raise the water into a 4-mile feeder, 45 feet above the level of the lake, to supply the summit pound which was less than a mile long. Water supply was always a significant feature in the operation of the canal and indeed supplying water to private customers was to perpetuate the life of the canal as an independent canal company beyond its carrying days.

From the summit to the north and east, 36 locks descended to Sowerby Bridge, while to the south and west, another 56 locks descended to Castlefield Junction,

on the edge of Manchester. The Manchester section of the canal is one of the most impressive urban landscapes in England - in Ancoats it is lined by historic textile mills while approaching Deansgate it is flanked by railway arches.

Deansgate (www.penninewaterways.co.uk)

The canal was financially successful carrying almost one million tons in 1845 and resisted railway takeover though it was leased by four railways for 21 years. The Rochdale Canal Company with some commercial traffic and water supply role remained independent and though it had powers to close in 1952 and 1965 and though in 1923, the Oldham and Rochdale Corporations Water Act paved the way for the transfer of its eight reservoirs to those corporations to supply drinking water, it survived as a waterway long enough to see aspirations for full restoration by the Rochdale Canal Society.

The saga of campaign to save, and eventually to restore, the Rochdale Canal was to last some 50 years as most of the canal was closed in 1952 when an act of parliament was obtained to ban public navigation Though its line had also been severed in the late 1960s by the M62, restoration had proceeded at its Manchester end and then in the 1970s Manpower Services schemes run by various local authorities had restored other sections. In order to comply with Millennium funding requisites the Waterway Trust took over responsibility for the canal from the private Rochdale Canal Company and an investment package totalling some £24 million enabled the canal to be opened for navigation its entire length in 2002. It was transferred to the ownership of the Canal and River Trust when CRT was created in 2012.

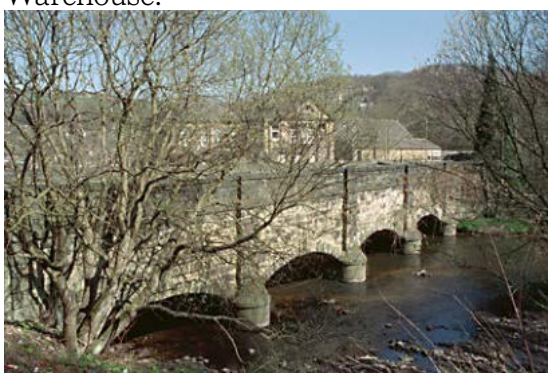
Statement of Significance:

The Rochdale Canal has always been of considerable historical significance. It contains numerous high quality structures one of which, March Barns Skew Bridge (1005559) at Castleton, has pioneer structural claims to be the first stone-built skew bridge in England and is a Scheduled Monument.

(Left) March Barn Bridge Castleton (www.penninewaterways.co.uk)
(Right) Dale Street Warehouse, Manchester (IoE 388078 Brian Lomas)

The Grade II* Dale Warehouse (12000845) at Dale Street in Manchester is of particular interest for its subterranean water driven hoist mechanisms and those at Sowerby Bridge are also particularly fine.

Elements of considerable significance: Black Pit Aqueduct (1230245) Hebden , Sowerby Bridge Basin (see Calder & Hebble), March Barn Skew Bridge, Dale Street Warehouse.



(Left) Black Pit Aqueduct, Hebden (IoE 405064 Norman Hurst)
(Right) Aqueduct over the River Irk (www.penninewaterways.co.uk)

Elements of some significance: most of its original locks and bridges, Tormorden retaining wall, warehouse with barge hole at Gauxholme (1133744), Aqueduct over Luddenham Brook (1313720), the eight reservoirs)especially the three constructed in the late 18th century). Warehouse below and integral with Chapel (1366168). The Irk Aqueduct and the electrically operated Grimshaw Lane Lift Bridge.

Grimshaw Lane Lift Bridge, Middleton Junction (www.penninewaterways.co.uk)

Main References: BR/P-T/RE

Websites Wikipedia contains a detailed account of the saving and restoration of the canal 1952 to 2002.

The Pennine Waterways website includes photographs of much of the main features of the canal.

Waterway: **Royal Military Canal**

Status:	watered, part SSSI	
Overall Heritage Value:	3	
Owner/operator:	EA	
Line:		
Seabrook to Cliff End		28 miles
Date of opening:	1806	Closed 1909
Statutory designations:	Scheduled Monument	21

Summary Description and History:

Built as a defensive measure in the invasion scare of 1804, though Rennie was initially involved, the waterway was engineered by Lt. Col. Brown and built by civilian navvies (and the ramparts by soldiers) but wasn't completed until late1806 when threat of invasion had gone.

A military road was built on the inland side and crossings consisted of moveable wooden bridges. There were Martello Towers defending the sluices that controlled the water level.

(Left) Royal Military canal at Hythe (Wikipedia Ian Dunster)
(Right) Iden Lock (royalmilitarycanal.com)

In peacetime that section of canal which had access via Iden Lock was managed by commissioners and used by traders, the last barge passing in 1909. The canal was part of anti-invasion defences in the Second World War and indeed appropriately so, as under Operation Sealion would have been secured by a German parachute landing. It is now managed by EA and has several SSSIs and a footpath along its length.

Statement of Significance:

Of considerable historical significance for its military role in two wars more than a century apart, and for its environmental interest. Twenty one of its sections covering locks, bridges and cottages are scheduled monuments including Iden Lock (1003259) hence its relatively high Heritage Value of 3.

The line of the canal, kinked for defensive purposes.

Elements of considerable significance: The entire canal is covered by scheduling.

Elements of some significance:

Main References: **P-T/RR**
Vine, P.A.L. *The Royal Military Canal*

Websites: Wikipedia

Waterway: **St Columb Canal**

Status: Abandoned and in-filled
Overall Heritage Value: 1
Owner/operator: various
Line:
two sections Trenace point inland 4.5 miles
St Columb Port inland 2 miles
Date of opening: 1777-9
Disused: 1781
Statutory designations: none

Summary Description and History:

Under an Act of 1773, John Edyvean planned to build a 13 mile tub-boat canal on semi-circular route from two points on the coast to convey sea sand and coal to inland farms. Inclined planes were to link the ends to the beaches and at least one was constructed. In the event only two sections were built from the beach terminal point and as there were no locks only slight traces of the canal bed can now be discerned and the arch of one bridge.

Statement of Significance:

Of minor historical interest as demonstrating the late 18th century belief in canals as agricultural improvers. At Lusty Glaze the site of the incline down the cliffs is still clearly visible while further along an original bridge still carries the footpath from St Columb Minor to Penrose over the course of the canal. The rudimentary incline is the earliest surviving in the country.

Elements of considerable significance: none

Elements of some significance: site of the incline down the cliffs at Lusty Glaze

Incline on extreme left
(Wikipedia Tony Atkin)

Main References: P-T/RR

Websites Wikipedia

Waterway: **St Helens Canal** (Sankey Brook Navigation)

Status: Abandoned – partly watered and partially in-filled
Overall Heritage Value: 3
Owner/operator: various, including CRT and local authorities
Line: St Helens to Fidlers Ferry and Widnes
Date of opening: 1759
Disused and closed progressively: 1919, 1931 and 1959
Abandoned: 1963
Statutory designations: Grade II 4

Summary Description and History:

The Sankey Brook or St Helens Canal runs for about 15 miles between St Helens in Lancashire and Widnes in Cheshire, with short branches to Blackbrook and Gerrard's Bridge. Only two short sections at Widnes and Fidlers Ferry are open for navigation. Much of the canal is in water although some sections have been in-filled. Built under a Navigation Act of 1755 it was in reality a canal and as such is widely regarded by some as the first industrial canal in mainland Britain.

(Left) Old Double Locks (www.penninewaterways.co.uk)
(Right) New Double Locks (IoE 216373 Peter Sargeant)

It contains remnants of the earliest pair of staircase locks in England and sections have been restored as water features by local authorities and the Sankey Canal Restoration Society.

The original southern end was at Fidlers Ferry Locks (1762 and 1833), where boats joined or left the tidal River Mersey.

The second lock, now filled in, was built a short distance to the west, to enable more boats to lock through with each tide. The locks became disused after the canal was extended to Widnes in 1833.

This lock was restored in the 1980s by Warrington Council and now gives access to the marina. The entrance lock of the wet dock at Spike Island, Widnes, built in 1833

as a railway dock, serving the St Helens and Runcorn Gap Railway has been in-filled but Widnes lock gives access to the Mersey.

(Above) Fidlers Ferry Lock (www.penninewaterways.co.uk)
(Right) 1833 Lock, Spike island (IoE 56059 Patrick Norris)

Statement of Significance:

Though later than the Newry canal in Ireland and very much a lateral canal paralleling a river the St Helens Canal can be regarded as a transitional waterway heralding in the age of industrial canals so triumphantly exemplified by the Bridgewater Canal two years later.

Bradley Swing Bridge (IoE 216314 Peter Sargeant)

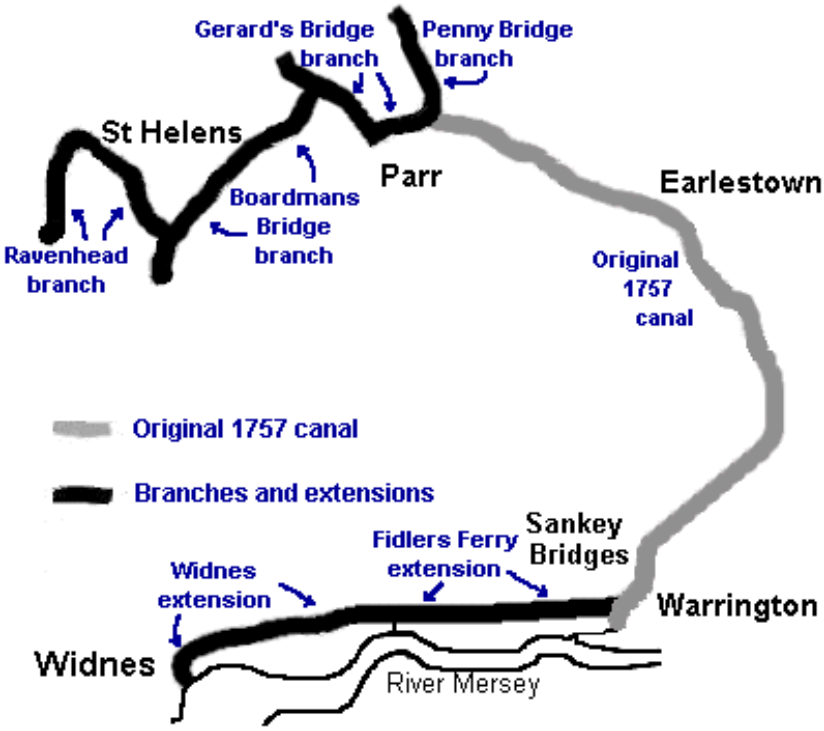
Elements of considerable significance: Old Double Locks of1756/7 (1343270) and New Double Locks of1770 (1283484) Locks at Spike Island (1330354) Spike Island wet dock.

Elements of some significance: the remains of Newton Common Lock, Bradley Lock, Hey Lock, Winwick Lock, Winwick Quay maintenance depot with yard and former stables (1254641) and dry dock at Winwick Quay, Hulme Lock, Bewsey Lock and swing bridge, Warrington, Fidlers Ferry lock and Widnes Lock.

Main References: BR/P-T/RR/DB/RE

Websites: Wikipedia Sankey Canal Restoration Society

The Pennine Waterways website includes a virtual tour of the whole length of the canal and includes a map showing the development of the canal. (www.penninewaterways.co.uk)



Waterway: **River Severn**

Status:	CRT waterway	
Overall Heritage Value:	3 L (BWB)	
Owner/operator:	CRT	
Line:		
CRT Stourport to Gloucester		42 miles
	(navigable light craft to Shrewsbury)	
Date of opening:	ancient times;	
Improved by locks Gloucester to Stourport:		1843
Statutory designations:	Grade II*	1
	Grade II	5

Summary Description and History:

Though navigable from time immemorial the Severn has always been a difficult river because of its tidal range in the lower stretches, floods and shoaling in the upper reaches. In flood, light vessels could almost reach Welshpool. Traditionally trows were bow hauled by gangs of men and a horse towpath from Shrewsbury to Gloucester was only built in stages under several Acts between 1797 and 1818. (see section 2) Locks between Gloucester and Stourport had to wait until the 1840s to be constructed by William Cubitt and Edward Leader Williams.

The River Severn at Diglis Locks Worcester (Geograph Philip Halling)

Although traffic on the river above Stourport had ceased by 1900, steam-powered boats and tugs provided an effective service on the lower part of the river. Grain, imported through Sharpness, became an important traffic, other significant traffics being imported ironstone and timber, and coal from the Forest of Dean. In the 20th century oil and petrol became a major traffic, this largely ceasing in the 1960s.

Statement of Significance:

On the Severn some of these river wharfs such as The Wharfage in Ironbridge and Underhill Street in Bridgenorth had multi-storey warehouses with taking-in doors and some of these survive while the Coalbrookdale Company's single storey gothic transit warehouse on The Wharfage now houses the Museum of the Gorge.

Transhipment facilities on these wharfs could be quite elaborate as between the Shropshire canal and the river at Coalport.

Severn Wharf,Ironbridge (IoE 362247 Ian Liston)

Warehouses 18 & 20A The Wharfage Ironbridge (IoE 362236 362238 J K Aldred)

Due to legal wrangling the Severn was late to be improved. The towpath between Bewdley and Coalbrookdale, authorised in 1772, was not completed until 1800 and upstream to Shrewsbury only by 1810. The towpath had to cross the river several times and bridges were provided across tributary streams. At least three small such bridges survive, two of cast iron - over the Mor Brook dated 1824 cast by Onions of Broseley and over the Borle Brook cast by the Coalbrookdale Company in 1828 while a small masonry arch crosses the mouth of the Leighton Brook. Some of the tributary streams had rudimentary navigation features as on the River Tern where a small lock seems to have been built c 1710 to access the Tern Forge. It was partly demolished when Attingham Park was landscaped in 1797 but enough survived to be recorded by Dr Michael Lewis in 1969 who found ashlar blocks and a floor of transverse timbers with brick paving

Large masonry locks and weirs were eventually built at Lincomb, Holt, Bevere and Diglis lock was doubled. These were completed by 1871.

(Left) Lincombe Lock (Geograph, Roger Kidd)

(Right) Holt Lock (Geograph, Roger Kidd)

Maisemore Lock, which originally linked the Gloucester & Hereford Canal is abandoned but the main river locks are still in use and have lock cottages dating from the C19 and C20. The best examples are at Holt Lock and Diglis but none seem designated under these names.. There are several very significant bridges over the Severn including the Iron Bridge, several by Thomas Telford and Stourport Bridge but these are not part of the navigation and are not managed by CRT.

The junction locks with other waterways including the Staffs & Worcestershire Canal, the Gloucester & Hereford Canal, the Worcester & Birmingham Canal etc. are considered under those waterways.

Elements of considerable significance: Severn Locks

There are historic bridges (non CRT) at many places, with five designed and built by Thomas Telford, also the Iron Bridge at Ironbridge and Coalport Bridge. Pritchard's Stourport Bridge. Cast iron towpath bridges over the Mor Brook (1824), the Borle Brook (1828) and the small masonry arch towpath bridge crossing the mouth of the Leighton Brook.

Elements of some significance: River wharfs in the Ironbridge Gorge especially Coalport and at Bridgenorth; Former junction with the River Tern and with the Gloucester & Hereford Canal

Main References: **BR/P-T/RE Priestley 1831**

1803 Plymley, J. *A General View of the Agriculture of Shropshire* Telford's article on canals dated Nov 1800 pp 284–316

2005 Trinder, B. *Barges & Bargemen: A Social History of the Upper Severn Navigation 1660–1900* Phillimore

2013 Fisher, S. *British River Navigations* Alard Coles Nautical

2016 Trinder, B. *Industrial Archaeology of Shropshire* Logaston Press

Websites: CRT Wikipedia

Waterway: **Sheffield & South Yorkshire Navigation**

Status:	CRT		
Overall Heritage Value:	3 M (BWB)		
Owner/operator:	CRT		
Line:			
River Don	Stainforth to Tinsley	33 miles	
Sheffield Canal	Tinsley to Sheffield	4 miles	
Stainforth & Keadby	Canal	13 miles	
Date of opening:	Don	1751	
	Sheffield Canal	1819	
	Stainforth & Keadby	1802	
New Junction Canal	5		
Joint with Sheffield & South Yorkshire Navigation Act 1891			Opened 1905
Statutory designations:	Scheduled Monument	1	
	Grade II*	1	
	Grade II	9	

Summary Description and History:

Before 1626 the River Don had two outlets, an eastern branch that meandered across Hatfield Chase to join the River Trent and a northern branch, which was a Roman navigation channel, and joined the River Aire at Turnbridge. Vermuyden's drainage scheme for Hatfield Chase, begun in 1626 and largely completed by 1628, included the construction of Ashfield Bank, which ran for 2 miles (3.2 km) along the southern bank of the Don from Fishlake to Thorne, cutting off the eastern branch. Navigation to Sandtoft was made possible by the provision of a navigable sluice in the bank, which had lifting gates and a 50-by-15-foot lock chamber. In the winter of 1628, there was flooding at Fishlake and Sykehouse, which was followed by rioting. A navigable sluice was built at Turnbridge in 1629, with a lock 60 by 18 feet and an outfall sluice called the "Great Sluice" was completed in 1630, probably by Hugo Spiering, who had assisted Vermuyden with the main project. Further improvements were negated by floods and local landowner opposition and it was not until 1726 that an Act was passed which allowed a comprehensive navigation scheme.

The Don, though of significant economic potential, posed problems for improvement, as below Doncaster it flowed through low lying land subject to flood, and the 16 miles to Wilsick was tidal. Furthermore, above Doncaster the river was much steeper with weirs for mills and the final section from Tinsley to Sheffield was so problematical that it was omitted from the 1726 Don Navigation Improvement Act. Therefore the section below Doncaster was built with locks and weirs not more than four feet high and with very ample sluices gates and, somewhat later, a 2-mile cut below Wilsick improved that section. Above Doncaster all the locks had finally been

built by 1751 and the 33 mile long navigation now had nine miles of cuts and 17 locks suitable for 30-ton vessels.

Until recently the Sheffield & South Yorkshire Navigation was very much a commercial waterway linked to the industries of northern England, especially those of steel and coal. The waterway is an amalgamation of the Sheffield Canal (Act 1815 completed 1819) the Don Navigation (navigable from ancient times) and the Stainforth & Keadby Canal (Act 1793 completed c1802).

The Rive Don has 17 locks originally built in the mid-18th century but much modernised , the Sheffield (& Tinsley) Canal 12 locks originally built in the early-19th century but also much modernised and the Stainforth & Keadby entrance locks at Thorne and Keadby.

Bramwith Lock Don Navigation (www.penninewaterways.co.uk)

The New Junction Ccanal, constructed jointly with the Aire & Calder canal was authorised in 1891 and opened in 1905 to link the Don Navigation and Stainforth & Keadby canal with the Aire & Calder Navigation (Knottingley Canal). It is completely straight, and was the last canal built in England for commercial purposes. The 5 mile long canal has one lock, five lift or swing bridges and two aqueducts with the one over the River Don protected by large guillotine gates, which can be lowered when the Don is in spate, to prevent the surrounding countryside from being flooded.

(Left) The Don Aqueduct (www.penninewaterways.co.uk)
(Right) Sykehouse Lock and Swing bridge (Wikipedia Bob1960evens)

During the 20th century, there were several plans to upgrade the Don, to handle larger craft. The company had hoped to run compartment boats for the transport of coal along the canal, as the Aire and Calder did, but although straightening of the navigation was completed at Doncaster in April 1905 and at Sprotborough in late 1907, and Doncaster Town Lock was lengthened in 1909 and 1910, most of the locks could only hold three compartments at a time, and so there was little advantage to using this type of boat. Bramwith Lock on the Stainforth and Keadby Canal was lengthened in 1932, to allow compartment boats to be used for the coal traffic while as late as 1959 Long Sandall Lock was extended to 215 by 22 feet. The new lock allowed trains of 17 compartment boats to work through to Doncaster and Hexthorpe, as Doncaster Town Lock above it and Sykehouse Lock below it on the New Junction Canal were already of a similar size.

(Left) Barnby Dun Lift Bridge 1983 (Wikipedia Dave Bevis): (Centre) Sprotborough Lock (Wikipedia Bob1960evens): (Right) Keadby Entrance from the River Trent (www.penninewaterways.co.uk)

In 1983, it was upgraded to the 700-tonne Eurobarge standard by deepening the channels and enlarging the locks as far as Rotherham. Conisbrough lock was removed altogether, and the two Eastwood locks were combined into one. The expected rise in freight traffic did not occur, however. At Kilnhurst and Long Sandall, the new larger locks were built alongside the original locks, and so a comparison of the relative sizes can be made while the early Strawberry Lock (1314870) is Grade II.

The trade on the system, despite these constant attempts at modernisation, had by the later 20th century declined greatly and the upper section comprising the Sheffield canal slid towards dereliction through lack of use. In 1990 there was a concerted effort by Sheffield City Council and British Waterways to revitalise the waterway, which brought traffic back to a redeveloped Sheffield Basin (now focused on leisure and commercial activities and renamed Victoria Quays).

Today the system is open to navigation throughout the main line, the Stainforth and Keadby and New Junction canals, and is mostly used for leisure boating. Some commercial carrying does take place from the quarry at Cadeby and the wharves at Rotherham and Doncaster; plus there is an active commercial barge-yard at Swinton and leisure boatyard and boat-builder at Sheffield. In 2008–09 the system carried 290,000 tonnes of freight, of which 266,100 tonnes were limestone from Cadeby.

Statement of Significance:

Don Navigation has a complex history with much early 17th- and early 18th-century navigation equipment being replaced by later cuts running parallel to river. Many

engineers have been involved including Vermuyden who seems to have built four sasses (pound locks) between 1626 and 1630 at Thorne, Turnebridge, Stokwith and Misterton as shown on a map of1633 (Jones 1994). Present navigation has altered locks, several with undistinguished C19 of mid C20 cottages (which have some group value).

(Left) Vazon Sliding Railway Bridge (www.penninewaterways.co.uk): (Right) Keadby Lock (IoE 165195 Janet Roworth)

The Stainforth & Keadby Canal was engineered by John Thompson (Survey 1772, engineer 1792-95) and Daniel Servant.

It has entrance locks at Keadby (1005204) which is a scheduled monument and Thorne and a unique railway drawbridge on an operational line. Historic features are few although a number of metal and timber swing bridges survive, along with bridge-keepers' lobbies (eg Moores Bridge). Also several canal cottages of various dates, none very distinguished. Thorne has a group of canal buildings, including dwellings and here the canal joins the Don.

The River Don has two Grade II locks Jordan Lock (1132714) and the old lock at Strawberry Lock.

Jordan Lock (IoE 335687 Paul Eggleston)

At Tinsley the Sheffield & Tinsley Canal begins. Engineered by Henry Buck RE, it is 4 miles long and the Sheffield Basin has high heritage value with Terminal Warehouse (1247016) Grade II* , the remainder of the canal has been heavily re-engineered in the 20th century.

(Left) Terminal Basin Sheffield Straddle Warehouse (Pennine Waterways) and (right) Grade II* Terminal Warehouse Sheffield (IoE 456134 Barbara A West)

Due to this long history of modernisation, the presence of relic or by-passed features might warrant an assessment of these waterways.

(Left) Darnall Aqueduct (IoE 456813 David Clayton)
(Right) Kilnhurst Lock, with the older, disused lock to the right. (www.penninewaterways.co.uk)

Elements of considerable significance: Keadby Lock. Sheffield Basin. Railway drawbridge at Keadby Darnall Aqueduct (1270905), remains of mid-18th century Milethorn Lock (now in by-passed loop)?

Elements of some significance: Swing bridges and lobbies on Stainforth & Keadby. Thorne canal yard/boatyard New Junction Canal aqueducts (River Don, River Went), cottages, milestones.

Main References: BR/P-T/RE

Websites: CRT Wikipedia

Waterway: **Shrewsbury Canal** (incl **Wombridge Canal**)

Status:	Abandoned	
Overall Heritage Value:	4	
Owner/operator:		
Line:		
	Shrewsbury to Trench	17 miles,
	Wombridge section to Donnington Wood	2 miles
Date of opening:	1797	
	(Wombridge Canal 1788)	
Statutory designations:	Scheduled Monument	1
	Grade I	1
	Grade II	6

Summary Description and History:

Shrewsbury Canal was begun by Joseph Clowes under an Act of 1793 to link Shrewsbury to the Shropshire coalfield by a tub-boat canal . Clowes died in 1795 and was replaced by Thomas Telford as chief engineer.

Howard Street Warehouse Shrewsbury (IoE 457386 M. I. Joachim)

It ran from Shrewsbury to Trench where an incline made connection with the already existing Wombridge Canal which led to the tub-boat system of the Shropshire Canal. It terminated in Shrewsbury where a fine warehouse cum market building survives at Howard Street. It remained isolated from the rest of the canal network until 1835, when the Birmingham and Liverpool Junction Canal built the Newport Branch from Norbury Junction to a new junction with the Shrewsbury Canal at Wappenshall.

Longdon-on-Tern Aqueduct (IoE 362298 B A James) and (Wikipedia Priewis)

On the Shrewsbury line which was completed in 1797, Telford, with the ironmaster William Reynolds, rebuilt a collapsed masonry aqueduct over the Tern with a pioneer iron trough aqueduct which was to be the precursor of his famous Pontcysllte Aqueduct.

(Left) Berwick Tunnel North Portal (Wikipedia Mark Evison): (Right) Guillotine Lock Hadley Park (IoE 362126 Ian Liston)

The 970-yard Berwick Tunnel (1239507) was the longest tunnel then built with a towpath and the locks which could take four 20ft long tub-boats had guillotine lock gates.

When connection was made with the main canal system after 1835 the Shrewsbury Company planned to widen the locks and bridges of the Shrewsbury Canal to take standard narrow boats. Only the 2 Eyton locks and the bridges on the Wappenhall to Shrewsbury section were widened.

(Left) Lock keeper's cottage on the Shrewsbury branch of the Shropshire Union Canal of early 1830s date. (IoE 362116 Ian Liston): (Right) Wappenshall Warehouse (IoE 362117 Ian Liston)

In 1846, the Shropshire Union Railways and Canal Company bought most of the east Shropshire canal network, including the Shrewsbury Canal and after ownership passed to a series of railway companies, the canal was officially abandoned in 1944; many sections have disappeared, though some bridges and other structures can still be found.

There is an active campaign to preserve the remnants of the canal and to restore the Norbury to Shrewsbury line to navigation. In 2007, the canalside buildings at Wappenshall, including a trans-shipment warehouse which has been little altered since it ceased to be used in the 1930s, and retains many original features, were put

up for sale. They were eventually purchased, along with a length of the canal and the Wappenshall basin, by Telford and Wrekin Council, who are working with the Trust to allow repairs to the buildings to be undertaken, with the aim of providing a museum and heritage centre for the canal, a cafe, and offices for the Canals Trust.

Toll Clerks Office c. 1835 (IoE 362119 Derek Taylor)

Today the short stretch of canal to the first lock is used as moorings, while the lock itself is used as a dry-dock.

Statement of Significance:

Features of considerable interest on the canal include Telford's cast-iron aqueduct at Longdon-on-Tern (1006275,1037006), the line of the inclined plane at Trench and two locks also designed by Telford, with guillotine gates. Hadley Park lock and Turnip lock (1279751) are the only locks on the canal to retain their original mechanism. The southwest entrance to Berwick Tunnel (1239507) is designated as is the Howard Street Warehouse (Butter Market) in Shrewsbury (1254526) and the Wappenshall Warehouse (1187281).

Elements of considerable significance: Longdon-on-Term Aqueduct, Berwick Tunnel, Guillotine Locks, Wappenshall Basin and warehouse, Howard Street Warehouse

Elements of some significance: numerous bridges, Lock-Keepers House and Toll Clerks Office 1187397)

Main References: BR/P-T/RE

1803 Plymley, J. *A General View of the Agriculture of Shropshire* Telford's article on canals dated Nov 1800 pp 284 -316

1991 Morriss, R.K. *Canals of Shropshire* Shropshire Books

Websites: Wikipedia The Shrewsbury & Newport Canals Trust website contains a detailed history and description of the canal route.

Waterway: **Shropshire Canal**

Status:	Abandoned (part watered)	
Overall Heritage Value:	3	
Owner/operator	various	
Line: Donnington Wood to Coalport		10 miles
Date of opening:	1792	
Statutory designations:	Grade II	3

Summary Description and History:

The Shropshire Canal was built under an Act of 1788 by local industrialists led by William Reynolds who surveyed the route advised by William Jessop. It was a tub-boat canal that ran from a junction with the Donnington Wood Canal and ascending the 316 yard long Wrockwardine Wood inclined plane to its summit level, it made a junction with the older Ketley Canal while at Southall Bank the Coalbrookdale (Horsehay) branch went to Brierly Hill above Coalbrookdale; the main line descended via the 600 yard long Windmill Incline and the 350 yard long Hay Inclined Plane to Coalport on the River Severn. The short section of the Shropshire Canal from the base of the Hay Inclined Plane to its junction with the River Severn is sometimes referred to as the Coalport Canal. It was completed in 1792 and with its branch was some 10 miles long and in addition to its incline planes had two short tunnels. Another incline was built at Brierly Hill 1794 to connect to the Coalbrookdale horse tramroad.

Canal Bridge , Dawley (IoE 445013 Ian Mannering)

Despite low tolls in favour of its owners, who were also intensive users, the system was quite profitable. In the 1840s it was leased by the Shropshire Union Canal, but was suffering from subsidence by the 1850s. Following nine breaches in 1855 and 1856, it was purchased by the London and North Western Railway, owners of the Shropshire Union, in 1857 and most of it was closed in 1858. A railway was laid along parts of it, but a small section at the southern end remained in operation until 1912, and was not formally abandoned until 1944. The Hay inclined plane and a section of the canal now form part of the Ironbridge Gorge Museum Trust.

Statement of Significance:

Much of the route has been destroyed by the building of houses and industrial development, but some of the larger features remain. The Wrockwardine Wood inclined plane can be traced, although it has been severed by a new road junction and both the tunnels have gone. An aqueduct that carried the canal over a minor road near the hamlet of Aqueduct (1377111) is Grade II listed.

(Left) Canal Aqueduct, Dawley (IoE 362529 John Gear):
(Right) Bottom of the Hay Incline (IoE 362004 J K Aldred)

The remains of the Brierley Hill tunnel and vertical shafts were rediscovered in 1988 and nearby, parts of the inclined plane that replaced the lifts are traceable. Nearly a mile of the main line immediately above the top of the Hay Inclined Plane (1054161) can be traced, and although full of weed, contains some water.

The inclined plane at Hay, which was last used in 1894, was restored in 1968 and again in 1975, including the reinstatement of rails. There are the remains of a building with a chimney stack at the top of the incline, which was probably the engine house. A grade II listed bridge carries a road over the bottom of the plane. The canal then parallels the River Severn for a short distance past the Coalport Pottery and allowing a transhipment wharf to the river. These Hay Incline and Coalport features account for its high Heritage Value and its recognition in the International Canal List.

(Left) Shropshire Canal at Coalport (Wikipedia Cripin Purdye)
(Right) Top of the Incline Plane (Wikipedia Riggwelter)

Elements of considerable significance: Hay Incline Plane

Elements of some significance: Bridge over Hay incline, aqueduct at Aqueduct, remnants of inclines. Canal at Coalport

Main References: **P-T/RE/RR**

1803 Plymley, J. A General View of the Agriculture of Shropshire Telford's article on canals dated Nov 1800 pp 284 -316

1991 Morriss, R.K. *Canals of Shropshire* Shropshire Books

2016 Trinder, B. *Industrial Archaeology of Shropshire* Logaston Press

Websites: Wikipedia

Waterway:	**Shropshire Union** (incl **Ellesmere Canal**, **Middlewich Branch** and **Newport Branch**)		
Status:	CRT waterway (Newport Branch part abandoned)		
Overall Heritage Value:	5 H (BWB)		
Owner/operator:	CRT		
Main Line:			(opened)
	Chester Canal Chester to Nantwich	20 miles	1779
	Ellesmere Canal R. Mersey to Chester	9 miles	1797
	Birmingham & Liverpool Junction	40 miles	1835
Branches:			
	Middlewich to Barbridge	10 miles	1833
	Newport to Norbury	10 miles	1835
Ellesmere Canal:			
	Hurleston to Frankton Junction	29 miles	1805
	Frankton Junction to Llanymynech	11 miles	1796
	Weston Branch	6 miles	1797
	Prees Branch	4 miles	1806
	Whitchurch Branch	1 mile	1811
	Pontcysyllte Branch (WHS – Llangollen Canal)		1801
Statutory designations:	Scheduled Monument	6	
	Grade II*	10	
	Grade II	233	

Summary Description and History:

The complex history and geography of this canal network system is such that Bradshaw's arrangement of the separate components is adopted here, omitting the Welsh sections.

The Shropshire Union Canal is a mid-19th century amalgamation of several canals. The 'main line' was constructed in three stages by three different companies, covering the whole of the 'Canal Age' – the 20-mile long Chester Canal completed in 1779 from the River Dee to Nantwich, the Wirrall section of the Ellesmere Canal which linked the Chester to the River Mersey in the mid-1790s, creating the small settlement of Ellesmere Port around its northern terminus. The canal from Nantwich to Autherley Junction (near Wolverhampton) received its Act of Parliament in 1826 but was not completed until 1835. This was the Birmingham & Liverpool Junction Canal, providing a direct route from the industrial West Midlands for exports and imports though Ellesmere Port, where the facilities were considerably enhanced.

The Chester Canal was built under an 1772 Act but its construction was beset by financial and engineering problems and a succession of engineers were involved

including Samuel Weston, Thomas Morris, Josiah Cleses, John Moon and Joseph Taylor. It opened to Beeston in 1775 and finally opened to Nantwich in 1779 a length of some 20 miles. From a river lock into the River Dee at Chester it now has 16 of broad locks rising through a three-rise staircase at Northgate and a two-rise staircase at Bunbury which are Grade II*. The Chester canal struggled financially until the Ellesmere Canal was opened to Chester in 1797. Significant improvements such as Beeston Iron Lock were then possible.

(Left) Bunbury Locks (IoE 351226 J M Pickering): (Right) Hurleston Junction Lock (Wikipedia Roger Kidd)

The Ellesmere Canal had two sections bracketing the Chester Canal – a short section across the Wirral from Ellesmere Port and a much longer section from Hurleston Junction leading into Shropshire and with other canals and branches into Wales. It was built under an Act of 1793 with William Jessop consultant surveyor and engineer while Thomas Telford was appointed General Agent responsible for most of detail of the structures. He was to be main engineer of the later canals that were to form the Shropshire Union network.

A branch from Middlewich to the Trent & Mersey canal was opened in 1833 by the Ellesmere & Chester Canal, an 1816 amalgamation of the two existing canals, enabling clay to be taken to the Potteries and crockery exported via Chester.

(Left) Lock adjacent to Trent & Mersey Canal, Middlewich (IoE 56364 R. A. Brierley)
(Right) Nantwich Road Aqueduct 1829 (IoE 56369 R. A. Brierley)

The 40-mile long Birmingham & Liverpool Junction Canal was authorised by an Act in 1825 to provide a shorter a link between the industrial Midlands and the Port of Liverpool. Engineered by Thomas Telford until his death in September 1834, it was completed in 1835 and is notable for its direct line involving deep cuttings and long embankments. It required 26 locks to drop the 176 ft from Autherley to Nantwich.

These were mainly concentrated in flights, with five locks at Tyrley, another five at Adderley, fifteen at Audlem and two at Hack Green. A stop lock reduced the flow of water between the canals at Autherley Junction, and the main supply of water was from the Belvide Reservoir constructed 1832-3 under Thomas Telford. However the canal was so successful it had to buy water from the Wyrley & Essington Canal and the Bevide Reservoir was expanded by William Cubitt 1836-42.

(Above) Bridge near Wappenshall junction (IoE 362120 Derek Taylor)

(Left) Telford's Grade II* Belvide Reservoir Round Valve House and Retaining Wall Brewood (IoE 435135 GW Tanner)

The Newport branch was completed in 1835 from Norbury Junction on the newly opened Birmingham & Liverpool Junction Canal through Newport to join the Shrewsbury Canal at Wappenshall near Wellington.

All these canals, together with what are now the Llangollen (see above) and Montgomery Canals (see above) merged in the mid-1840s to create the Shropshire Union Railways & Canal Company. The intention was to convert the Main Line and the branch to Newtown into railways. However, in 1847 the Shropshire Union was leased to the mighty London & North Western Railway but control by a railway company did not inhibit further development. Much investment was put into the docks at Ellesmere Port, particularly in the 1870s and, coinciding with the opening of the Manchester Ship Canal, the 1890s. The Shropshire Union's fleet of boats grew to be the largest fleet in the country by 1900. The disruption caused by the First World War and, especially, the coming of reliable motor lorries, led to a sharp decline in canal traffic and the closure of the carrying company in 1921. Nevertheless, some commercial carrying continued until the 1960s.

Most of the system is open for navigation and there is an active canal society restoring parts of the Newport branch. The Chirk Bank section of the Llangollen Canal is part of the Pontcysyllte World Heritage Site and is a scheduled Monument while the English part of the Chirk Aqueduct (1295150) is Grade II*.

Statement of Significance:

Main Line	Chester Canal Chester to Nantwich 20 miles	opened 1779
	Ellesmere Canal R. Mersey to Chester 9 miles	opened 1797
	Birmingham & Liverpool Junction 40 miles	opened 1835

The SUC has a series of 'Telford pattern' cottages, single storeyed with polygonal centre bay; workshops and lock lobbies; cast iron mileposts; Norbury Yard. Telford's last section of the SUC is unsurpassed for completeness and quality but his career spanned the formation of the entire system with his early involvement with Jessop at its inception and his influence, with his inherent attention to architectural detail, is evident throughout .

Significant features on the two older sections of the SUC include Bunbury Locks, Beeston Iron Lock (1827) Grade II* (1006766) and stables (1130339) Tower wharf and Taylor's Yard (1375715) in Chester, the beehive hovels at several locks, the cutting through rock at Northgate, Chester and Ellesmere Port Boat Museum, with restored basins, workshops, docks and domestic buildings (see Section 3).

(Left) Two room hut, Tollhouse Ellesmere Port (IoE 56296 K Truman) (Right) Dry Dock at Junction of Ellesmere (Wirral) and Chester Canals (IoE 469910 Michael J Tuck)

Ellesmere Port, Whitby Locks and Basin (Wikipedia Traveler100)

(Left) Telford's warehouse c 1790 Chester (IoE 469898 Naomi J. Hughes)
(Right) Northgate Locks Chester (IoE 469913 Michael J Tuck)

(Left) Clays Farm Bridge, probably 1779 J Clewes (IoE 56729 R. A. Brierley)
(Right) Telford's Beeston Cast Iron Lock 1828 (IoE 439175 Mr Keith Walker)

Telford's Birmingham & Liverpool Junction canal is the last great canal to be built on traditional lines; a superb late example of programme-built canal engineering with many buildings and structures of high heritage value. These include: numerous high quality bridges in brick and stone, cast-iron and stone aqueducts including Stretton (1039259) 1832 cast iron trunk, Nantwich (1229541) Weaver (1115811) and Wheelock (1138799) 1829 brick, Shebdon (1243061)and Berrisford 1280437) masonry c.1829.

(Left) Weaver Aqueduct (IoE 351235 J M Pickering)
(Right) Nantwich Aqueduct (IoE 57006 Howard W Hilton)

There were massive cuttings such as Grub Street spanned by high bridges (1406777) and embankments (eg Shelmore, Tyrley).

(Left) Hollings Bridge Loggerheads (IoE 362640 Clive Shenton)
(Right) Avenue Bridge 1830, Brewood (IoE 271403 GW Tanner)

Norbury Junction Workshops (IoE 446526 Steve Davis)

Middlewich Branch

Middlewich Branch has a good collection of little-altered brick bridges with stone copings and its three locks are little altered.

(Left) Roving Bridge Wardle Junction with Chester Canal section (IoE 56834 Howard W Hilton)
(Right) Wharf House remodelled warehouse and cottage perhaps Telford. (56626 J M Pickering)

Newport Branch

(Left) Bridge over entrance to Newport Branch (IoE 446524 Steve Davis)
(Right) The first warehouse to be built at Wappenshall Junction facing the new basins at the end of the Newport branch (IoE 362118 Ian Liston)

Ellesmere Canal

Hurleston to Frankton Junction 29 miles opened 1805

(Left) Grindley Brook Staircase locks (Wikipedia Martin Clarke)
(Right) Wrenbury Church Bridge (IoE 422451 Howard W Hilton)

There are some original lift bridges such as Wrenbury Church Bridge (1357482) and Stark's Bridge and Allmans Bridge (1237206) on the Prees branch which are wooden bascule bridge operated by counterweight and chain system and all three are Grade II*.

Frankton Junction to Llanymynech 11 miles opened 1796

(Left) Navigation Inn and attached warehouse Maesbury Marsh (IoE 255664 R L Francis)
(Right) Early 19thcentury limekilns beside canal at Llanymynech (IoE 256667 Myk Briggs)

Weston Branch 6 miles opened 1797
closed 1917

Weston Branch now a short arm (Geograph Penny Mayes)

Prees Branch 4 miles opened 1806
Only short arm open

(Left) Prees Branch 1979 (Geograph Neil Clifton)
(Right) Allman's Bridge Whixall (IoE 428420 Les White)

Whitchurch Branch 1 mile opened 1811

Whitchurch Arm (Geograph Espresso Addict)

Llangollen Canal (English section)

Line:

Chirk to Frankton Junction (Shrops Union Canal) 7 miles

Date of opening: 1801

Summary Description and History:

The Canal now known as the Llangollen Canal was originally promoted as part of the Ellesmere Canal (Act 1793) which itself became an integral part of the Shropshire Union Canal in1845 (qv). The Ellesmere canal was surveyed by William Jessop with Thomas Telford its General Agent. The section in England starts at the Chirk Aqueduct the aqueduct being completed in 1801and is a short distance (to Glenrid Bridge) still part of the Pontcysyllte World Heritage Site. The line of the canal and its environs in the WHS contain eight scheduled monuments and one listed bridge. The section down to Frankton Junction has two locks and is crossed by 17 bridges.

Statement of Significance:

Being partly a World Heritage Site and engineered by Jessop and Telford the canal is generally of very considerable significance and the Chirk Aqueduct Grade II* – the engineering precursor of Pontcysllte – is of great significance. It was to be the model for several later aqueducts such as those on the Union Canal in Scotland. The WHS section was assessed for designation prior to Nomination.

Chirk Aqueduct (IoE 255822 John Garton-Jones)

Elements of considerable significance: see above for WHS elements and Ellesmere Yard

(Left) Blacksmiths and Joiners Shops, Ellesmere Yard (IoE 260793 Les White)
(Right) Timber Store Ellesmere Yard (IoE 260794 Les White)

Elements of some significance: WHS elements see above and locks and bridges in the eastern section.

Main References: Pontcysllte Aqueduct and Canal WHS Nomination Document

2015 Wakelin, P. *Pontcysyllte Aqueduct and Canal World Heritage Site* CRT

In the 1790s the Ellesmere Canal and the Chester Canal shared offices in what is now known as Raymond House and this later was to become offices for the Shropshire Union after 1849. The Ellesmere also had the company head office in the bow fronted Beech House (1176445), which was possibly designed by Telford and is graded II*, as is the wharf and yard at Ellesmere.

(Left) Canal Office, Beech House, Ellesmere. The committee room of the canal company was on the ground floor of the semi-circular projection overlooking the 3 branches of the canal. (IoE 260797 Les White)
(Right) Sycamore House Maesbury Marsh (IoE 255665 R L Francis)

The two storey cottage at Chemistry Lock (1375739) in Chester is designated along with its privy which originally discharged into the lock sluice way which ran under the yard at the rear of the cottage. while on the Ellesmere Canal the Telford designed cottage at Grindley Brook with its rounded bay and verandah and giant pilasters is pure Regency while near Maesbury Marsh Sycamore House (1177300) is a smaller version of Beech House at Ellesmere.

Taylor's boatyard on the Chester Canal section of the Shropshire union is a very fine extensive complex of workshops and graving docks and are scheduled (1375715). The CRT Maintenance depot on the Llangollen Branch with its attached covered dry dock for the manufacture and repair of canal barges, is designated Grade II* and is described in the NHLE as 'of great significance in relationship to the canal industry, for it comprises one of the key functional buildings in what is now acknowledged to be the best-preserved canal workshop site in Britain. The dry dock, which has access direct to the canal, comprises an exceptionally early example of such a structure' (1366122). On the same canal the maintenance complex at Norbury Junction is Grade II (1273014).

Ellesmere Port, where the Shropshire Union joins the Mersey, developed in the first half of the 19th century and despite its massive 20th century expansion and

some tragic losses (to fire c.1971) of the magnificent Telford designed warehouses still retains a port canal landscape of huge significance centred on the basins and buildings of the National Waterways Museum such as the Island Warehouse (1330390), the Clay Warehouse (1329999), stables (1130339), Boiler houses and hydraulic accumulator tower (1130338) and lock keepers hut (1130344) etc. Ellesmere Port, was very much a company town. After its expansion of port facilities under Telford in the early 1830s company housing was to follow, first with Porters Row (1130337) and then in 1837 by Union Street, Back Union Street and Shropshire Row. (For fuller discussion see Section 3)

Locks c1801 (IoE 56278 K Truman) Tollhouse Early C19, Thomas Telford (IoE 56275)

Elements of considerable significance: The whole line of equipment of Telford's former Birmingham & Liverpool Junction.

Beeston Iron Lock, Bunbury Locks, Northgate Locks, Chester Llangollen Maintenace yard (1366122) the Chirk Bank

Elements of some significance: Beehive hovels on Chester Canal, Cuttings through rock at Chester, Nantwich Basin, Links to derelict Newport Branch and Shrewsbury Canal, Junctions with Llangollen Canal and Middlewich Branch, Audlem Wharf and crane (B & LJC).

Main References: BR/P-T/RE

1803 Plymley, J. *A General View of the Agriculture of Shropshire* Telford's article on canals dated Nov 1800 pp 284 -316

1977 Jarvis, A. *Ellesmere Port - Canal Town 1795-1921* The Boat Museum

1991 Morriss, R.K. *Canals of Shropshire* Shropshire Books

2005 Emery, G. ed. *The Old Chester Canal* Chester Canal Heritage Trust

Websites: CRT Wikipedia

Waterway: **Sleaford Navigation**

Status: Abandoned but partly navigable
Overall Heritage Value: 2
Owner/operator: EA
Line: Sleaford to the Kyme Eau 12 miles
Date of opening: 1794
Closed: 1881
Statutory designations: Grade II 4

Summary Description and History:

Built under an Act of 1792, the 12 mile canalisation of the River Slea involving seven locks opened in 1794 and was successful until the mid-19th century. Traffic had dwindled by the 1870s and an Act of Abandonment was obtained in 1878 and it closed three years later. However half of it remained navigable until the Kyme Lower Lock was converted into a sluice.

(Left) Flood Gates at entrance to Navigation (Wikipedia Bob1960evens)
(Right) Sleaford Navigation Office (IoE 191760 John M Smith)

In 1977, the Sleaford Navigation Society was formed, with the aim of restoring navigation to the whole canal and with the support of the Anglian Water Authority the Kyme Eau lock was restored in 1986 allowing navigation for 8 miles. In 1997 the Sleaford Navigation Trust was formed and continued to work on restoring the structures of the canal, campaigning successfully to prevent the Navigation Warehouse from being demolished in 1998 and it has since been restored. A further stretch in Sleaford has been opened, facilitated by construction of a lifting bridge and Cobbler's Lock, though disused, is Grade II.

(Left) Cobbler's Lock (IoE 192547 David Brown): (Right) Haverholme Bridge (Wikipedia Bob1960evens)

Navigation House, the former residence of the clerk, has been refurbished and now houses an interpretation centre. A stone plaque over main doorway said to be the arms of the Sleaford Navigation Company, the supporters being a coal-miner and an agricultural worker These arms may have been designed by Sir Joseph Banks.

Statement of Significance:

Elements of considerable significance: none

Elements of some significance: Seed Warehouse (1261293), Navigation House (1061301), locks 1893 Haverholme Bridge

Main References: P-T/RR/RE

Websites: Wikipedia Sleaford Navigation Trust

Waterway: **Somerset Coal Canal**

Status:	Abandoned, part converted to railway		
Overall Heritage Value:	4		
Owner/operator:	various		
Line:			
	Paulton to Limpley Stoke	10 miles	
	Radstock branch	7 miles	
Date of opening:	1801 and 1805		
Closed:	Radstock Branch to tramway		1815
	mainline		1904
Statutory designations:	Grade II	10	

Summary Description and History:

This short Canal has a convoluted and interesting history. Authorised in 1794 and always seen as an adjunct to the Kennet & Avon Canal which obtained its Act in the same year, it was planned to bring coal from the Somerset Coalfield around Radstock to Bath and via the Kennet & Avon to rural Wiltshire and beyond.

Course of the canal and branch (Wikipedia)

As finally built it had two arms – the longer 10.5 miles long from Limpley Stoke to a basin at Paulton with 23 locks, two aqueducts at Dunkerton and the Radstock branch 7.5 miles long with an aqueduct at Midord and a tunnel at Wellow.

A feature of the canal was the variety of methods used at Combe Hay to overcome height differences between the upper and lower reaches of the canal, initially by the trial use of caisson locks and when this failed an inclined plane and then a flight of 19 locks.

(Left) Bridge near Caisson House (IoE 32447 Graham G G Warren)
(Right) South west entrance to Wellow Tunnel (IoE 32365 John Peters)

(Left) Combe Hay Locks (Wikipedia spoonfrog):

(Right) Midford Aqueduct (Geograph, Guy Wareham)

The canal despite its heavy lockage and trans-shipment problems prospered throughout much of the first half of the 19th century carrying coal to rural south central England via the Kennet & Avon and its connecting canals.

The Radstock Branch was intended to link to the main line of the Paulton Branch at Midford, which was at a lower level at this point. The Lock Fund created in 1802 was to have paid for the construction of the locks, but because there was little regular traffic on the branch, the company built one lock, an aqueduct over the Midford Brook, and a short tramway to bridge the gap. This contributed to the economic failure of the branch, and its replacement by a tramway in 1815. The tramway was laid along the former canal's towpath with single-line with passing places every 600 yards. It was originally laid using cast iron plates on stone block sleepers, but was re-laid using wrought iron plates.

Statement of Significance:

Archaeologically, this short canal has more significance than its short length might suggest hence its high Heritage Value. The juxtaposition on a trial caisson lift, an incline plane (1320442), 22 locks at Combe Hay and the site of a pumping engine is unique on the English canal system. Though both arms were converted into railways and some is its structures have gone such as the fine weigh house at Midford and the small Dunkerton Aqueduct the canal still retains several sites of significance including Midford Aqueduct (1320472), the Combe Hay locks (1115372) and

associated features, Dunkerton Aqueduct, entrances to Wellow Tunnel (1232502 and 1320467) and the narrowed entrance lock (1276919) off Dundas Basin at Limpley Stoke which though now a mooring branch off the Kennet & Avon has a multitude of masons marks preserved on its stonework.

(Left) Entrance to canal at Dundas Aqueduct (Wikipedia Rodw)
(Right) Paulton Basin Dry Dock (Wikipedia spoonfrog)

Elements of considerable significance: Combe Hay Locks and incline, Midford Aqueduct

Elements of some significance: caisson spillway at Upper Midford, Dunkerton Aqueduct, Wellow Tunnel, Paulton Basin and dry dock, Dundas basin entrance lock.

Main References: P-T/RE/RR

1970 Clew, K.R. *The Somersetshire Coal Canal and Railways.*

2000 Halse, R. & Castens, S. *The Somersetshire Coal Canal: A Pictorial Journey.* Bath: Millstream Books

2011 Halse, R. *The Somersetshire Coal Canal: A Second Pictorial Journey.* Bath: Millstream Books

Websites: Wikipedia Somerset Coal Canal Society

Waterway: **Southampton & Salisbury Canal**

Status:	Abandoned in-filled	
Overall Heritage Value:	1	
Owner/operator:	various	
Line: West Grimstead to Kimbridge		5 miles
Redbridge to Northam		3.5 miles
Date of opening:	1802 (partially)	
Closed:	1808	
Statutory designations:	Grade II	1

Summary Description and History:

This short-lived canal company intended to provide a through route from the Andover Canal to Salisbury and Southampton via two sections of canal. An Act was secured in 1795 and with Joseph Hill as engineer, cutting began including an 880 yard tunnel under Southampton and a stretch towards Salisbury. Neither sections were fully completed and Rennie reported serious deficiencies with the tunnel but there was some use between 1802 and 1808 when the company was defunct. Very little remains of the Southampton branch, some of it being later built on by railways, a gasworks and streets. The branch towards Salisbury is still discernible in the landscape particularly loops where it was not assimilated into a later, more direct, railway line. The only extant original bridge is located at East Grimstead. It consists of a single arch built in brick, and it is a Grade II listed structure.

Canal Bridge East Grimstead
(IoE 319472 Peter Hubbard)

Statement of Significance:

Little of significance survives other than an impressive cutting at West Dean and the listed bridge (1181681) at East Grimstead.

Elements of considerable significance: none

Elements of some significance: East Grimstead Bridge, cutting at West Dean

Main References: P-T/RR

1966 Welch, E. *The Bankrupt Canal: Southampton and Salisbury 1795–1808*. Southampton City Council.

1990 Vine, P.A.L. *Hampshire Waterways* Middleton Press

Websites: Wikipedia Southampton Canal Society (Gallery 1 & 2)

Waterway: **Staffordshire & Worcestershire Canal**

Status:	CRT waterway	
Overall Heritage Value:	5	
Owner/operator:	CRT	
Line:		
Trent & Mersey Canal at Great Haywood to Severn at Stourport		46 miles
Hatherton Branch		3.5 miles
Date of opening:	1772	
Hatherton Branch:	1841	(closed c.1949)
Statutory designations:	Scheduled Monument	1
	Grade II	24

Summary Description and History:

Built under an Act of 1766 and surveyed by Brindley, engineer, assisted by Samuel Simcock and Thomas Dadford the Elder the Staffs & Worcs Canal was very much a companion canal to the Trent & Mersey which had received its Act on the same day. Opened in 1772, it was the only canal of any great length finished in Brindley's lifetime. Though a classic Brindley contour canal it has 42 locks and at its southern end the need to tranship into the River Severn called into being a pioneer canal town, Stourport-on-Severn. It is claimed by Preistley (1831) that the Staffs & Worcs Canal witnessed Brindley's first construction of a narrow lock – that at Compton at the end of the summit pound from Gailey.

Graceful canal bridge of 1772 at junction with Trent & Mersey Canal at Heywood (IoE 443269 Howard Bagshaw)

As a first generation canal, it prospered for much of its early life but then suffered from competition from the Birmingham & Worcester Canal (1815) and in 1835 from the Birmingham & Liverpool Junction canal. Somewhat later, it countered competition from the railways by financing improvements on the river Severn itself.

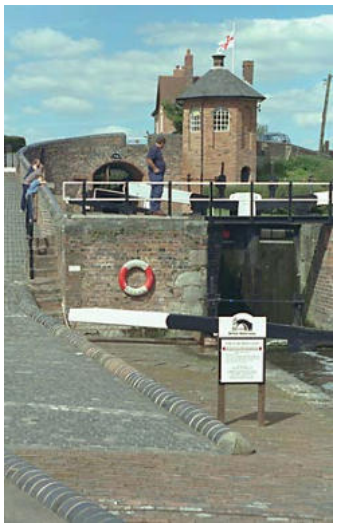
The 3.5 mile Hatherton Branch with 8 locks was financed by the company itself and was opened in 1841 to tap the Cannock coalfields. The Canal was never taken over by a railway and paid dividends up until nationalisation. There are proposals to restore the Hatherton Branch, which had been extended in 1863 to the Cannock Extension Canal by a further 13 locks as a joint venture with the BCN, but as it has been partly obliterated by roads and opencast mining only a short section of the original branch is navigable and a new alignment would have to be built to reconnect with other canals.

Statement of Significance:

The Staffs & Worcester has retained an C18 Georgian 'atmosphere' despite many alterations and therefore has high archaeological and heritage value. As an early contour canal built to Brindley's principles with rare pioneering structures such as the two squat brick aqueducts, the Great Haywood and Sow aqueducts (1273478).

Aqueduct (1771) over River Sow (IoE 444738 Howard Bagshaw)

Stourport itself is of great historic significance with basins, warehouses and dwellings (see below). Sites like the Bratch (1232421) and Awbridge Lock (1003735) display Brindley features: staircase, side ponds, toll house at Bratch; lock, bridge and circular weir group at Awbridge.



Bratch Lock and house of 1771 (IoE 407805 Mark Hadley and Galey Round house of c.1805

Gailey lock has a much later associated round house/toll office/cottage. Brindley's aqueducts are low, broad masonry structures. Bridge and lock combinations are present in early form and a number of cottages of differing style and appearance survive such as at Bumblehole lock (1277055) and Stewpney Lock (1277374) and add to the quirkiness of this important canal.

Bumblehole Bridge and lock (IoE 407803 Mark Hadley)

Dunstall Water Bridge (1201772) is an unusual feature where a stream is led over the canal by an aqueduct combined with an accommodation bridge. The Smestow Brook powered many mills so was not available as a water supply hence the water bridge which built in c.1771 has metal plates forming the soffit of the aqueduct channel.

Dunstall Water Bridge (Wikipedia Sjwells 53)

The basins (1209441, 1209450) at Stourport are exceptional and some of the warehouses (1292376) and cottages date from the 18th century. The former Tontine Hotel (1292639) and its stables (1292169) and the Workshops (1209471) at Parke's Passage are Grade II. The later southern basins were in-filled in the 20th century but have been recently been re-excavated.

Stourport, former Tontine Hotel (IoE 393321 Philip Williamson)

Elements of considerable significance: Stourport (basins, dry-dock, Tontine building, warehouses barge locks etc), Bratch locks and Awbridge lock/bridge/ circular weir, Milford (Sow) Aqueduct, Gailey round house, roving bridge at Great Haywood.

Elements of some significance: Early instance of lock and bridge combination. Circular weirs. Surviving toll offices/lobbies. Stourport Engine House. Accommodation bridge Hatherton Branch. Dunstall Water Bridge

Main References: BR/P-T/RE

1974 Langford, J.I. *Staffordshire and Worcestershire Canal. Towpath Guide 1.* Cambridge: Goose & Son.

2007 Giles, C. et al *Stourport-on-Severn Pioneer Town of the Canal Age* English Heritage

2005 Cross-Rudkin P S M, 'Constructing the Staffordshire & Worcestershire Canal 1766-72' *Trans Newcomen Soc.* vol. 75 pp 289-304

Websites: CRT Wikipedia CRT

Lichfield & Hatherton Canals Restoration Trust

Waterway:	**Stamford Navigation Canal** and **River Welland**

Status:	Canal Abandoned, River part navigable	
Overall Heritage Value:	2	
Owner/operator:	Canal various, River EA	
Line:		
Stamford to Market Deeping		9.5 miles
	to Fulney Lock	+16 miles
Date of opening:	Canal c1670	closed 1863
	River navigable to Crowland	
Statutory designations:	none	

Summary Description and History:

It is thought that the River Welland has been used for navigation since Roman times and certainly in medieval times when navigation is mentioned in several documents and indeed somewhat later improvements were sought in an Act of 1571 to restore navigation to Stamford by removing obstacles. The Stamford Navigation Canal is thus part of the Welland Navigation and eventually achieved a hundred years later the restored connection of Stamford to the Wash. The river and artificial cut sections as built by Daniel Wigmore and opened in 1670 had a combined total of over 9 miles with 12 locks, with the cut being some 6.8 miles and containing 10 of the locks. The locks were sketched by an engineer in 1699 and seem to have been turf sided with masonry abutments and chain operated mitre gates. The canal succumbed to railway competition and closed in 1863.

The River Welland is tidal up to Fulney Lock below Spalding and from there it is navigable above Spalding for some 9 miles for small boats due the restricted headroom of some modern bridges. The Fulney Lock which was closed for some time was re-opened in 2016 allowing vessels up the Spalding. Historically bridges up to Stamford allowed navigation and some such as that at Deeping Gate (Grade II*1309230) is dated 1651and therefore predate the Stamford Navigation Canal improvement and is proof of the earlier phase.

Statement of Significance:

When the Stamford Canal cut opened in 1670 it rivalled the River Wey as having the longest locked artificial cuts in the country and these both preceded the Kennet Navigation by sixty four years and Sankey Canal by almost a century. With the earliest mitred lock gates on a canal it has a considerable historical significance as a pioneer navigation/canal but as there are only vestigial remains other than foundations of two river locks in the Deepings and a warehouse at Stamford Wharf its remains rate a lower heritage value than might appear from the historical interest.

The canal cuts would perhaps warrant more detailed investigation to identify and assess the remains of any locks.

(Left) Bridge at Deeping Gate (Wikipedia, Lofty): (Right) The remains of Deeping St James High Lock (Wikipedia Richard Croft)

Numerous bridges across, and mills along, the River Welland are designated but few relate directly to navigation.

The River Welland is tidal to Fulney Lock and Marsh Road Sluice and, through Fulney Lock, is navigable on Spring tides to Spalding and, for small boats only, above the bridges at Spalding to Folly River near Crowland.

(Left) Fulney Lock (Geograph, Kate Jewell): (Right) The Riverside Club Stamford incorporates to the rear the early navigation warehouse (Steve Machin The East Anglian Waterways Association)

Above Crowland there were two locks but these have been long disused while the bridge at Deeping Gate crosses the old navigable course of the River Welland.

Elements of considerable significance: early bridges

Elements of some significance: Stamford Wharf warehouse, remains of locks near Market Deeping

Main References: P-T/AW

Websites: Wikipedia The East Anglian Waterways Association

Waterway: **Stourbridge Canal**

Status:	CRT waterway	
Overall Heritage Value:	3 M(BWB)	
Owner/operator:	CRT	
Line:		
	Brierley Hill to Stourton (Staffs & Worcs Canal)	5 miles
	Wordsley Junction to Stourbridge	1mile
	Lays Junction to Pesnett Chase	4 miles
Date of opening:	1779	
Statutory designations:	Scheduled Monument	1
	Grade II	8

Summary Description and History:

Built under an Act of 1766 and engineered by Thomas Dadford the Younger to 1781 assisted by Abraham Lees (1781-1800) and James Green from 1800, the Stourbridge Canal had a flight of 16 locks and a further four at Stourton and a branch to Stourbridge. It was prosperous carrying coal from Dudley mines to iron and glass works at Stourbridge and had a comfortable relationship with the later railways. It finally succumbed to road completion by the mid-20th century with commercial traffic ceasing c.1950 and it fell into disrepair. It witnessed an early rescue operation between BWB and Staffordshire & Worcestershite Canal Society in 1964 and re-opened to navigation in 1967.

At the Stourbridge basin the Bonded Warehouse, a listed structure saved from imminent demolition in the 1980s, has since become the recipient of various civic awards in its new role as a community facility.

Bonded Warehouse, Stourbridge (Wikipedia Stephen McKay)

Statement of Significance:

The historic features on the canal are centred on the 'Stourbridge Sixteen' lock flight, especially Locks 9 and 10 (1116928, (1319705) ('The Staircase') with its two locks), iron turnover bridge and cottage with attached stable and office, the Delph flight

of 9 (now 8) locks and the two locks at the junction with the Staffs & Worcs Canal (1232007).

(Left) Lock No 9 lock formed a staircase with lock 10, although addition of a top gate to lock 10 has formed two locks separated by a short pound. Still effectively operates as a staircase. (IoE 442662 Colin Cundy)
(Right) The Delph Flight (IoE 217976 Colin Cundy)

(Left) Locks at the junction with Staffs & Worcestershire Canal (IoE 407318 Katharine D. Butterworth)
(Right) Stourbridge warehouse. (IoE 217873 Maggie Finney)

Stourbridge Town Arm terminates at the wharf with Bonded Warehouse, SNCo offices and restored cottages. The arm has an important and unusual series of cast iron coping plates to its channel walling.

Elements of considerable significance: Sixteen Locks, Stourbridge Town Wharf, Bonded Warehouse (1251214) and associated buildings

Elements of some significance: Late 19th-century transhipment shed at Lock 12. Iron copings on approaches to Stourbridge Town Wharf.

Main References: BR/P-T/RE

Websites: CRT Wikipedia

Waterway: **Stourbridge Extension Canal**
(with **Fens Branch**)

Status: Abandoned
Overall Heritage Value: 1
Owner/operator: various
Line: Stourbridge Canal to Shut End 3 miles
(incl short branches)
Date of opening: 1840
Statutory designations: none

Summary Description and History:

The Stourbridge Extension Canal was a two mile canal built to serve a number of local mines and was independent of the Stourbridge Canal with a stop lock at the junction. Built under an Act of 1837 with William Fowler as the engineer, who was replaced by Benjamin Townshend in September 1838, who had himself been replaced by William Richardson by the time construction was completed, the canal was all on one level, with a stop lock at its junction with the Stourbridge Canal, and the length of the main line was about 2 miles. This short canal off, though independent from, the Stourbridge Canal opened up access to coal and ironstone and hence greatly benefitted the latter. It had few engineering features but despite being acquired by the railways in 1847 traded profitably until the 1880s. Some sections had been abandoned in 1935 but limited trade continued until after the Second World War with the remainder being abandoned in 1960. Most of the canal was filled in after its abandonment and its line has been redeveloped. A short section of it is still used as moorings for boats using the Stourbridge Canal.

Middle Pool (Wikipedia Oosoom)

The Fens Branch section is a feeder to the Stourbridge Canal from Grove Pool and the lower section is still navigable. The Fen Pools, which consist of Grove Pool, Middle Pool and Fens Pool, were constructed as reservoirs, fed into a navigable branch which joined the canal's main line at Leys Junction, close to the top of the Stourbridge Flight of 16 locks through which the level of the canal falls by 145 feet down to Wordsley Junction, where the Stourbridge Town branch joins the main line. The reservoirs formed the main source of water supply for these locks, until it was supplemented by water leaving the Dudley canal with which the Stourbridge Canal made an end-on junction in 1792. The British Waterways list of reservoirs records

that the present Fens Upper, Middle and Lower Pool reservoirs, which are now SSIs, were built in 1815.

Statement of Significance:

Little of significance survives of the Stourbridge Extension Canal and its Standhills and Bromley branches. The heritage value relates to the Fen Pools reservoir and feeder.

Elements of considerable significance: none

Elements of some significance: stop lock at Bromley, Fen Pools reservoirs.

Main References: BR/P-T

Websites: Wikipedia

Waterway:	**Stover Canal and Hackney Canal**	
Status:	Abandoned	
Overall Heritage Value:	3	
Owner/operator	various	
Line:	Ventiford to River Teign	2 miles
	Hackney	0.5 miles
Date of opening:	1792	
Closed:	1943	
Statutory designations:	Grade II	5

(Stover Canal Trust)

Summary Description and History:

The two mile long Stover canal was built in 1790-92 by James Templar to transport clay to lock into the coastal trade at the River Teign. In 1820 traffic increased when granite from the Haytor quarries was transported via the Haytor Granite Tramway to the canal basin at Ventiford whence it was exported via the canal. Though the granite trade fell away in the mid 19th century the clay trade continued while coal, sand and limestone were carried inland.

(Left) Teignbridge Clay Cellars (IoE 84672 Jean M KIng): (Right) Canal Bridge at Teignbridge (IoE 84671 Jean M King)

The canal prospered under a variety, including railway, ownership and traffic held up into the early 20th century when road transport made it redundant. The GWR finally closed it in 1943 and after the canal burst its banks in 1950 the dry channel became overgrown and its structures derelict. However the line continued to be very traceable with the surviving bridge at Teignbridge and the remains of Teigngrace, Sea and Graving Dock locks.

The Stover Canal Society was formed in 1999 and, with the assistance of the local council, management of the remains passed to the Stover Canal Trust in February 2010, when a formal lease was signed. From 2012 work continued towards restoring it as an amenity. In August 2013 the towpath along the canal from Jetty Marsh to the Teigngrace Lock was opened by Mr Justin Templar, a direct descendent of James Templar who ordered the building of the canal over 200 years ago. The public are now able to enjoy a walk along the canal which had been inaccessible for some 60 years and there are aspirations to clear out infill from some of the bed and locks and with a Restoration Grant from the Association for Industrial archaeology to restore the unique Graving dock lock which doubled as a dry dock.

(Left) Graving Dock Lock (Stover Canal Society)
(Right) Kingsteignton Clay Cellars (IoE 85404 Keith Mackenzie)

The nearby Hackney Canal (only .6 mile long) was promoted by Lord Clifford of Chudleigh in 1843 to transport clay to the river Teign and had an entrance lock and a small wharf and basin inland. Traffic was brisk in the mid 19th century but was affected by railway competition and had ceased by 1929 and most of the line and the basin has been in-filled but the redundant clay cellars (1165512) of circa 1843 at Kingsteignton are Grade II.

Statement of Significance:

The significance of the remains of this short canal, which functioned with the Haytor Granite Tramway, is being increasingly appreciated as clearance and excavation reveals their detail. This work has revealed sidings of the Tramway beside the canal and in 2016 the hulks of two sunken barges were recorded. The three masonry locks are listed Grade II while there are also remains of an earth-banked chamber over 100ft long dating from c1792 and this in-filled lock is of some historical interest. Furthermore, the line is notable as being a community asset as an interpreted trail and cycle path.

Elements of considerable significance: Graving Dock Lock Sea Lock (lock 1)

Teigngrace Lock (lock 5) (1097339, 1097374 and 1334126) the Ventiford Basin and Kingsteinton clay cellars.

Elements of some significance: The in-filled canal basin with crane base, Teignbridge canal bridge and remains of the two turf-sided and timber locks. Barge hulks and Haytor Tramway sidings.

Main References: BR/P-T/RR

1964 Ewans, M.C. *The Haytor Granite Tramway and Stover Canal*. Newton Abbot: David & Charles

2002 Harris, H. *The Haytor Granite Tramway and Stover Canal*. Newton Abbot: Peninsula Press

Websites: Wikipedia Stover Canal Society

Waterway: **Stratford Canal**

Status:	CRT waterway	
Overall Heritage Value:	4 H (BWB)	
Owner/operator:	CRT	
Line:		
King's Norton to Stratford-on-Avon		25.5 miles.
Date of opening:	1802 and 1816	
Southern section closed	1945 reopened 1964	
Statutory designations:	Scheduled Monument	2
	Grade II*	5
	Grade II	55

Summary Description and History:

The Stratford-upon-Avon Canal was built between 1793 and 1816, runs for 25.5 miles in total, and consists of two sections with the dividing line at Kingswood Junction, which gives access to the Grand Union Canal. The northern section completed in 1802, first by Josiah Clewes then by Samuel Porter from Kings Norton to Lapworth, is level for the first 10.8 miles following the 453-foot Birmingham Level, but then descends quite rapidly through the Lapworth flight of 18 locks, to reach the junction.

Barrel-roofed Lock-keepers Cottage Kingswood Junction (Wikipedia Oosoom)

The southern section under William Whitmore was completed in 1816 and continues the descent with the final seven of the Lapworth locks and the Wilmcote flight of eleven locks, soon after which the canal reaches Stratford-upon-Avon where there is a barge lock into the River Avon. Thus along the 25.5-mile route of the canal, there are a total of 54 narrow locks and near King's Norton Junction there is a disused stop lock with guillotine gates, which used to prevent the canal taking water from the Worcester and Birmingham Canal when they were separately owned.

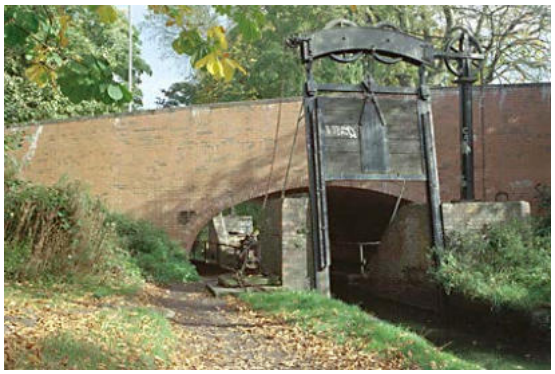
There is a 352 yard long tunnel at King's Norton, a brick-built aqueduct over the river Cole and three iron aqueducts at Yarningdale, Wooton Wawen and Edstone. Water was supplied to the reservoir at Earlswood by a beam engine from 1823 to 1936 when it was replaced by electric pumps.

(Left) Wootton Wawen Aqueduct (IoE 482587 Helmut Schulenburg): (Right) Edstone aqueduct (Wikipedia DeFacto)

Traffic was always heavier on the northern section as part of a through route and after the canals acquisition by a railway in 1856 trade on the southern section declined more rapidly. Thus the northern section nominally remained open when navigation ceased on the southern in 1945. It was the setting for a high-profile campaign by the fledgling Inland Waterways Association in 1947, involving the right of navigation under Tunnel Lane bridge, which required the Great Western Railway to jack it up in order to allow boats to pass. These actions saved the section from closure. The southern section was restored by the National Trust between 1961 and 1964, after a further attempt to close it was thwarted. The revived canal was re-opened by Queen Elizabeth the Queen Mother, and responsibility for it was transferred to British Waterways in 1988.

Statement of Significance:

On the northern section Kings Norton Tunnel (1796) and the unique Kings Norton Guillotine Lock (scheduled monument) are noteworthy.



(Left) King's Norton guillotine lock (IoE 409756 Peter Garratt)
(Right) Brandwood Tunnel (IoE 217611 Peter Garratt)

Brandwood tunnel has portals given architectural treatment; the west portal with a Shakespeare medallion.

South Stratford, originally built 'on the cheap' in the Napoleonic Wars, has greater heritage value and intimate rural landscapes. Significant features include Lapworth Yard and Kingswood Junction area, two major original iron aqueducts at Wootton Wawen (1382215 Grade II*) and Edstone (1005740) (the longest in England) and a third later aqueduct built in 1834 when the Yarningale masonry aqueduct

was washed away in a burst (1184618 Grade II*). The canal also has a number of cast-iron 'split' bridges such as that north of Lock 21 (1184313) and several canal dwellings, including unique barrel-roofed cottages as at Lapworth (1035079).

(Left) Canal Bridge Wootton Wawen (IoE 482584 William S. Thorne):
(Right) Re-opening of the Stratford Canal by the Queen Mother 1964 (Stratford Canal Society)

The Stratford Canal has a revered place in the history of the canal restoration movement. In 1947 the fledgling IWA led by Tom Rolt and Robert Aikman championed the legal rights of passage while in the early 1960s its successful pioneer use of voluntary labour established the efficacy of that resource.

Elements of considerable significance: Yarningale, Wootton Wawen and Edstone Aqueducts. Barrel-roofed cottages (three remain relatively unaltered). Split bridges eg north of lock 21 (1184313). King's Norton guillotine gated lock (1005885)

Elements of some significance: King's Norton Tunnel, Brandwood Tunnel (1290690) Earlswood Reservoir engine house (1342855) and the locks restored in 1960s and now have a certain 'restoration period' value. Shirley drawbridge. Engineering works west of lock 21 (1035082)

(Left) Yarningale Aqueduct (Wikipedia DeFacto): (Right) Earlswood Reservoir engine house (IoE 218202 Helmut Schulenburg): (Right) Shirley Drawbridge (Wikipedia Oosoom)

Main References: **BR/P-T/RE**

1962 Hadfield, C. & Norris, J. *Waterways to Stratford* D & C

2008 Squires, R. *Britain's restored canals* Landmark Publishing

Websites: CRT Wikipedia Stratford Canal Society

Waterway: **Stroudwater Navigation**

Status:	Abandoned, being restored	
Overall Heritage Value:	3	
Owner/operator	Stroud Valleys Canal Company (& Cotswold Canal Trust)	
Line	Framilode to Walbridge	8 miles
Date of opening:	1779	
Statutory designations:	Grade II	11

Summary Description and History:

The Stroudwater Navigation has a complicated early history as, following the success in canalising rivers such as the Wey and the Welland in the previous century several rivers such as the Kennet and the Avon were improved by engineering works in the early 18th century. Thus the River Frome in the Stroud valleys attracted the attention of wealthy landowners and mill owners keen to lower the price of raw materials to their concerns and indeed an Act was passed in 1730 to effect improvements. However nothing came of this initiative and only some private works were undertaken by Richard Owen Cambridge in a three mile stretch of river upstream from Framilode of which little survives other than documentary evidence [see M Handford, D Viner (1984)].

A second attempt in 1755 to obtain powers to improve the river met with opposition until in 1759 a scheme which proposed to use cranes to effect changes in level was granted consent. Some works on what became known as the Kemmet Canal were completed but, with repeated handling of goods, transport costs were not competitive and the canal was abandoned in 1763. Finally in 1776 a new Act gave the power to build a conventional canal which opened to Wallbridge, Stroud in 1779.

(Left) Weir between Kemmet Canal and River Frome (IoE 132316 Marion Teal)
(Right) Saul Junction (IoE 132436 Anne Griffiths)

Surveyed by Thomas Dadford with Thomas Yeoman who had earlier surveyed a navigation, and constructed as a canal under this revised Act of 1776, the Stroudwater had 12 locks in the eight miles from the Severn to Stroud. With the completion of the Thames & Severn Canal in 1789 it became a part of a cross-

country through route from the Severn to London. When the Gloucester & Sharpness Canal was completed in 1827 it bisected the Stroudwater at Saul Junction in a canal crossroads with bridges, a lock a cottage and boatyard.

Its main traffic was coal to the mills of the Stroud valleys and beyond and it was relatively prosperous until the coming of the GWR in 1845. It was in a poor state by the 1930s, with the last traffic passing in 1941 and despite opposition from the canal lobby it was abandoned in 1954. After the closure of the canal the Company of Proprietors, which by this time had an amenity Trust as the majority shareholder, was not disbanded and continued to generate income for many years through the sale of water and some monies produced by property holdings.

After a period of hostility towards navigation interests the Proprietors granted permission for the in 1979 for some restoration to begin. Subsequently in 2001 the various interests have come together as the Cotswold Canal Partnership and the Stroudwater is an integral part of the proposals to re-establish to through route across the Cotswolds. As the cost of these proposals is extremely high, the restoration has been broken down into smaller schemes which have attracted HLF and Government regeneration monies and assistance from BW. At the end of 2003, a provisional grant of £11.3 million was awarded by the HLF and augmented by several other sources, to enable the restoration of the Stroudwater Navigation between Stonehouse and Wallbridge, and the Thames and Severn Canal between Wallbridge and Brimscombe Port.

Nutshell Bridge (Wikipedia Weirdoldhattie)

The length being restored in the first phase is around 6 miles long, and presents some of the biggest difficulties to restoration in the whole 36-mile route. The second phase of the restoration project will be the section from Stonehouse to the Gloucester and Sharpness Canal at Saul, which has been blocked by both the M5 motorway and the A38 road. By mid-2012 over 2 miles of canal from Ocean swingbridge to the bottom of Dudbridge Locks were open for navigation, as was a second section from the top of the locks to the bottom of Wallbridge Locks on the Thames and Severn Canal. Dudbridge locks were opened for navigation in March 2014 and Griffin's Mill lock is now being worked on.

Statement of Significance:

The Stroudwater was an early canal and of considerable historical interest as a vital link to the Thames & Severn canal. Its surviving locks and spill weirs are of

some significance as are the associated bridges and keepers houses and several are designated including Ryeford Double Lock and Bridge ((1340669, 1172000) and Blunder (1400073) and Newton(1400208) locks and spill weirs. The weir (1090551) between the River Frome and the Kemmet Canal is also designated Grade II.

Ryeford Double Locks before (2003) and after restoration (IoE 132063 Jonathan Briggs and Cotswold Canals in Pictures)

The former headquarters building of the Company of Proprietors of the Stroudwater Navigation (1223347)survives but is no longer in their ownership.

Former Company Headquarters, Stroud (Cotswold Canals in Pictures)

Elements of considerable significance: early locks, Company office.

Elements of some significance: bridges, locks and lock-keepers houses

Main References: BR/P-T/RE/RR

1976 Handford, M. *The Stroudwater Canal Vol One 1729-63* Moonraker

1979 Handford, M. *The Stroudwater Canal* Sutton

1984 Handford, M & Viner, D. *Stroudwater and the Thames & Severn Canals: Towpath Guide* Sutton

Websites: Wikipedia Cotswold Canals Partnership has details of restoration progress. Cotswold Canals in Pictures contains many images of locks etc.

Waterway: **Tamar Manure Navigation**

Status:	Abandoned	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line:	Morwellham to Newbridge	3 miles
Date of opening:	by 1808	
Closed:	1929	
Statutory designations:	Scheduled Monument	1
	Grade II	1

Summary Description and History:

Part of an over-ambitious proposal to build canal from the Tamar at Morwellham (the head of river navigation) to link with the Bude Canal only a short section of river was improved and a short bypass canal with a barge lock completed by 1808. Nevertheless, the navigation traded for nearly 120 years carrying coal, bricks, lime, manure and granite. Disused by 1929, the Navigation Company went into liquidation in 1942.

(Left) High tide at Weir Head — excursion steamer Alexandra reversing at the entrance to the Tamar Manure Canal, in 1906 (Wikipedia NK)
(Right) Entrance Lock, Weir Head, Calstock (IoE 60893 Elizabeth Gabriel)

Statement of Significance:

The granite built lock, short cut and island at Weir Head Nutslake (1329331, 1007302) is well preserved and is both a scheduled monument and Grade II but buildings associated with the canal are mostly ruinous. The mid section of the River Tamar is encompassed by the Cornish Mining World Heritage Site.

Elements of considerable significance: none

Elements of some significance: Weir head Lock and basin (SM), ruined limekilns, cottages and warehouse.

Main References: BR/P-T/RE/RR

1971 Booker, F. *The Industrial Archaeology of the Tamar Valley* (2nd ed.) D & C

2014 Wood, A. *Abandoned & Vanished Canals of England* Amberley

Websites: Tamar Valley Industrial Archaeology website contains much information compiled by Robert Waterhouse, assisted by the Morwellham Archaeological Group, 2002-2010.

Waterway: **Tavistock Canal**

Status:	Abandoned but still watered	
Overall Heritage Value:	4	
Owner/operator:	other?	
Line:		
Tavistock to Morwellham Quay		5 miles
Mill Hill Branch		2 miles
Date of opening:	1817	
Closed:	1873	
Statutory designations:	Scheduled Monument	1
	Grade II	4

Summary Description and History:

Constructed by John Taylor under an Act of 1803, the Tavistock canal was completed in 1817 to link the town of Tavistock via a level waterway and an inclined plane, to Morwellham Quay on the River Tamar where cargo could be loaded into ships. The 4.5 mile canal had an aqueduct over the River Lumburn, a 2,540 yard tunnel and a third of a mile long inclined plane with a 237 ft drop to Morwellham Quay.

(Left) Canal in Lumburn Valley (Wikipedia Crispin Purdye)
(Right) Morwellham Quay 1990 (Wikipedia, David Stowell)

Between 1817 and 1819, a 2-mile extension was constructed to slate quarries and a general wharf at Mill Hill. This cost £8,000, and because there was a lack of water to supply locks, the 19.5 ft difference in level was accommodated by building a counterbalanced, double track inclined plane 312 yards long. Boats were loaded onto cradles, and the loaded boats passing down the incline raised the unladen ones, with three horses assisting if necessary.

The canal, though never commercially successful carried a reasonable trade, and made a little profit in its early years. An experiment with waterwheel-powered wire-hauling through the tunnel in 1859 was not a success. The canal was eventually sold in 1873 to the Duke of Bedford whose estate had been an original supporter of the scheme and In 1933 the canal was purchased by the West Devon Electric Supply Co.

Ltd, who constructed a hydro-electric power plant at Morwellham Quay using the canal and tunnel as a water supply. It forms part of the Cornwall and West Devon Mining Landscape World Heritage Site. It is unusual for a canal, as it has a gentle slope over its length, resulting in a considerable flow of water.

Statement of Significance:

The canal merits a high heritage value for the interest in its incline plane, its tunnel, Morwellham Quay and the buildings at Tavistock. The tunnel under Morwellham Down (1105707, 1105729) has portals dated 1803 but was not completed until 1816. In driving the tunnel through hard rock techniques were employed that were pioneer for their time and there were also high hopes of intercepting profitable metal lodes but these were only partly realised as proved by the exceptional archaeological survey undertaken in 2005. The archaeological evidence discovered in this survey may merit assessment for designation.

(Left and centre) Morwellham Tunnel (Towpath Treks)
(Right) End of Mill Hill Branch (Towpath Treks)

The waterwheel powered inclined plane was the highest in the country. The quays at Morwellham (1021461) are a very fine survival while there are several converted canal buildings at the now in-filled basin at Tavistock including a fine warehouse (now a theatre). The Mill Hill Branch of the canal still survives (at least partially) though it is dry for its entire length; it can be clearly seen where it leaves the main canal just downstream of the Lumburn Aqueduct.

Elements of considerable significance: Morwelldown tunnel, Morwellham inclined plane, Morwellham Quay – docks, limekilns and waterwheel

Elements of some significance: canal buildings in Tavistock, Mill Hill branch incline plane

(Left and centre) Tavistock Wharf (Towpath Treks)
(Right) Modern single gate stop lock and lift bridge (Towpath Treks)

Main References: **P-T/RE/RR**

1971 Booker, F. *The Tavistock Canal: The Industrial Archaeology of the Tamar Valley* (2nd ed.) D & C.

Websites: Wikipedia Tamar Valley Industrial Archaeology website contains much information compiled by Robert Waterhouse FSA, assisted by the Morwellham Archaeological Group, 2002-2010.

Waterway: **River Tees**

Status:	CRT waterway
Overall Heritage Value:	2
Owner/operator:	CRT
Line:	Worsall to Tees Barrage c.13 miles
Date of opening:	ancient waterway now transformed by barrage
Statutory designations:	none

Summary Description and History:

The meandering River Tees was improved for navigation up to Worsall in the early 19th century by artificial cuts made by the Tees Navigation Company which had been formed in 1808. The section down to the Tees Barrage, which was constructed in 1995, is now managed by the CRT.

Statement of Significance:

The river in the navigable section is crossed by some notable bridge structures allowing navigation, including the Transporter Bridge of (1911), The Tees Newport Bridge of 1934, the first large vertical-lift bridge in Britain, both of which allowed high vessels to pass and the five arched Victoria Bridge of 1887 at Stockton which had dry arches to allow barge horses to pass and Infinity Bridge the soaring double-arched footbridge built in 2008 as part of the regional regeneration scheme.

(Left) Tees Barrage 2008 (Wikipedia John Yeadon)
(Right) 1911 Transporter Bridge (Wikipedia John Oakley)

Navigation for small vessels extends above the historic Yarm Bridge but there are no navigation structures of note.

(Left) Tees Newport Bridge (Wikipedia John Yeadon)
(Right) Victoria Bridge Stockton-on-Tees (Geograph Steve Daniels)

Elements of considerable significance: Transporter Bridge, Tees Newport Bridge, Victoria Jubilee Bridge

Elements of some significance: Tees Barrage, Infinity Bridge

Infinity Bridge (Wikipedia John Yeadon)

Main References: BR/P-T/SF

Websites: Wikipedia CRT

Waterway: **River Thames**

Status:	EA Navigable waterway	
Overall Heritage Value:	4	
Owner/operator:	EA	
Line:		
Lechlade to Teddington Lock		126 miles
Date of opening:	NA	
Statutory designations:	Grade II	19

Summary Description and History:

The River Thames is the longest river in England and the navigable, non tidal, section above Teddington Lock has 45 locks in its 126 miles; it also has 138 weirs.

Teddington Weir, Barrage and Lock (Wikipedia, Mike Ricard and Motmit)

Many of the foremost waterway engineers have been associated with the river improvements including William Jessop, Josiah Clewes and John Rennie. With so many riverine features, its size in its lower reaches and its propensity to flood, its management has always required a balance between navigation and water control.

In the Middle Ages the Crown exercised general jurisdiction over the Thames. However, navigation was increasingly impeded by weirs and mills, and in the 14th century the river probably ceased to be navigable for heavy traffic between Henley and Oxford. In the late 16th century the river seems to have been reopened for navigation from Henley to Burcot. In 1751 the Thames Navigation Commission was formed to manage the whole non-tidal river above Staines. In 1866 the functions of the Thames Navigation Commission were transferred to the Thames Conservancy, which thus had responsibility for the whole river. In 1990 its river management functions were transferred to the National Rivers Authority, in 1996 subsumed into the Environment Agency.

The original locks were flash locks, Osney Lock being mentioned as early as 1227, and though some survived well into the 19th century, they were gradually replaced by pound locks from the 1770s onwards, initially with turf sided locks, and there have been many re-buildings since and few display pre-19th century features. Many are associated with complicated weirs with paddles and rymers and these weirs, despite constant re-builds, are also of very considerable significance. Some of these improvements have also left archaeological evidence in the redundant sections of river bed.

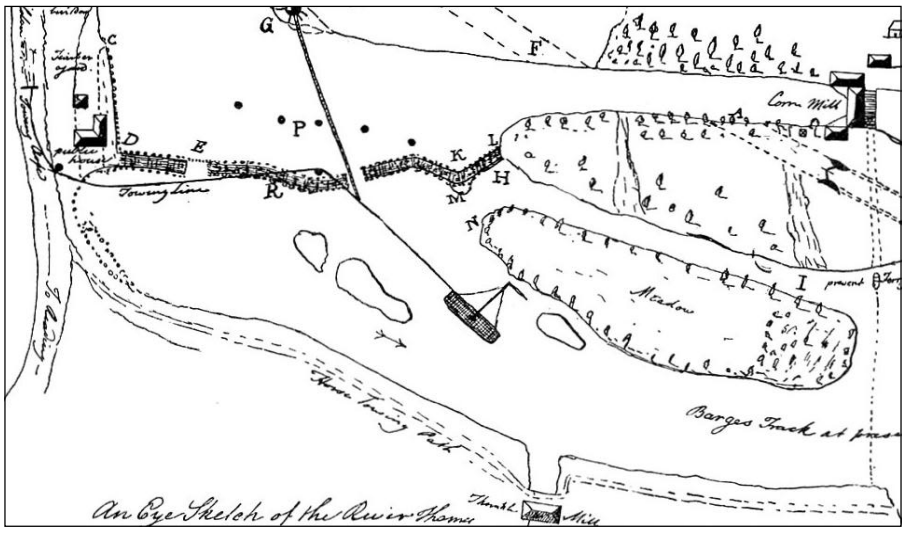
Statement of Significance:

The historical significance of the River Thames has long been recognised and has attracted a large body of literature, historic photographic recording and in recent years numerous reports auditing and assessing its riverine features. The series of unpublished reports by Trueman for the Environment Agency (2002, 2004 and 2008) with their Appendices total over 200 pages and comprise an unrivalled examination of the significance of the assets of a single waterway in its national context. The original 2002 report examined only the Paddle & Reimer weirs whilst making reference to the other features of the lock stations of which they are a part. The 2004 and 2008 reports with English heritage involvement firmly assessed the weirs alongside other components of the lock stations.

The Trueman Reports detailed assessment of the Thames, outline its history and establish its considerable significance; accordingly only a summarised version is given here:

The River Thames has been a major transport route since at least the twelfth century and. played a fundamental role in Britain's industrial revolution and its economic development from the 17th to the 19th century. The non-tidal river continues to be an important route for leisure boats, whose numbers grew though the nineteenth and twentieth century and steadily replaced declining commercial traffic. As a group, the surviving structures, earthworks and buried remains of locks, lock houses, weirs and other features, dating from the 17th century through to the present, are of clear national importance, with some individual elements of outstanding importance. Streatley (1393483), Goring (1393484) and Rushey (1393485) paddle and rymer weirs are all designated Grade II.

In river engineering terms, the history of the Thames Navigation is of major significance. In the medieval and post medieval periods, flashlocks and weirs were fundamental components of river navigation systems. The Thames navigation specifically employed the Paddle & Reimer type of flashlock and weir and the only extant examples of this type of structure appear to be on Thames.



1786 Plan of Whitchurch flash lock and weir (from Thacker 1914).

With the building of pound locks from the seventeenth century onwards, the use of flashlocks declined, but the weirs of which they had been a part remained integral to the system. The 1630s stone pound locks at Iffley (1047190), Sandford and Swiftditch (1059788) were amongst the earliest built in the country, and are notable survivals, possibly the earliest pound lock remains in England.

Pound lock c 1620? on Swift Ditch Culham (IoE 248813 A H Jacobs) and Old Iffley Lock 1632? Oxford (IoE 245663 Chris Tresise)

The series of major construction works on locks and weirs between 1770 and 1845 were pioneering works by major engineering figures of the time. Hence, for example, the Corporation of London's construction of 6 large locks and 5 weirs from Teddington to Penton Hook between 1812 and 1815 has been described as "one of the most outstanding examples of river engineering in English history"; whilst further upstream, the new Boulter's lock of 1828, in stone at 151' long by 19' wide with 6' fall, was the largest masonry pound lock then built on any English river navigation.

Molesey Lock and weir (Wikipedia Motmit)

The surviving form, physical components and buried remains of sites of that era are again of particular significance. The later 19th century saw major programmes of repairs, modernisations and enlargements along the whole river, using new building materials, house designs and weir technologies. These works continued into and through the 20th century and this history of change is well represented by surviving form and fabric in the operating structures of today.

St John's Lock Lechlade (Wikipedia Ballista)

The lock complexes though mostly later 19th century contain numerous heritage features – Robert Aikman referred to them as 'a continuous Edwardian picnic' eg Penton Hook lock-keeper's cottage (1298907).

Bray Lock (c.) and Caversham Lock and Weir (www.thames-path.org.uk)

Mapledurham Lock and Weir) Goring Lock (www.thames-path.org.uk)

Kings Lock and the weir at Northmoor lock (www.thames-path.org.uk)

There are also some 3½ feet high metal posts of c1860 with the City of London Shield cast on the front with lettering on the pier reading "24 &25 /VICT. CAP.42". A coal and wine tax post indicating the boundary at which duty was payable, that

on coal dating back to the 1660's. Examples are designated north of the Desborough channel (1030077 and 1377503) and at Elmbridge (1377504).

Trueman notes boundary posts of various types at 8 sites. two City of London Boundary Posts at Chertsey, one of which is listed. The remainder are Thames Conservancy posts, each taking the form of a cast iron post with hexagonal face bearing a coat of arms and lettering of two variants. The first has 'The Conservators of the River Thames' around the coats of arms, and 'TC' on the reverse. The second has 'The Conservators of the River Thames' around the coat of arms and a date, 'MDCCCLXI', underneath, with the reverse blank.

Desborough Channel
City of London Post
(IoE 286994 Peter Felton)

Father Thames (Geograph Philip Halling)

The Thames head statue at St John's Lock (1182045) 1854 by Raffaelle Monti, modelled for the Crystal Palace in cement is an unusual navigation monument. A semi-reclining figure of the river god with symbolic objects, he holds a shovel which represents the work of the navvies (navigators) and at his feet are bales and a barrel to symbolise the river's contribution to commerce. The statue was originally sited at the headwaters of the Thames in Trewsbury Mead, near Coates, Gloucester until moved to its present site on the lockside in 1974.

Lewis et al (1969) note that of the some 70 original flash locks only vestigial remains of five survive on the main river and slightly more of two late flashlocks on the Eynsham Wharf Stream and the Trueman Reports updated these findings and recommended those at Eynsham be assessed for scheduling.

There are of course many historic bridges over the River Thames and these from early times have had to accommodate navigation so have relatively high and wide arches. Most of them are designated including at Grade I Old Radcot Bridge 14th century, Grade II* Shillilngford Bridge 1826 and at Grade II St Johns Lechlade 1831, Lechlade Halfpenny Bridge 1792, Radcot Bridge mid-18th century and Sonning Eye Bridge c.1780 where the navigation arch is flanked by four lesser arches of either side.

(Left) Old Radcot Bridge (IoE 253798 Malcolm Osman)
(Right) Sonning Eye Bridge (IoE 247074 Richard Swynford-Lain)

Elements of considerable significance: Remains of early by-passed features eg 18th century Iffley lock (1047190), Eynsham Flash Locks, old Abingdon lock, Medmenham (Hurley) barge winch. Early lock-keepers houses Sunbury (1812) Penton Hook 1812? (1298907) Chertsey (1039970)Sandford Lock (buried)

Elements of some significance: Lock-keepers house eg Buscot (1368119

Also see recommendations for assessment in Trueman Reports 2004 Appendix B Assess;

Grafton Lock House
Rushey Lock house
Shifford house and office
Northmoor Lock lock house and lock
Pinkhill Lock boundary posts
Eynsham Flash Locks
Osney Lock buck weir
Iffley Lock: upgrade Grade II* and list other features
Sandford Lock schedule site
Whitchurch lock house 1828
Marsh Lock towpath bridge and lock house
Hurley Lock: schedule winch
Temple Lock: schedule site of old lock
Cookham lock list ferry post and lock house
Sunbury Lock: lock house 1812 and lock 1856

Main References: BR/P-T/RE

2002 Trueman, M.R.G. *Thames Paddle & Rymer Weirs: Archaeological Assessment*, MS report for English Heritage & Environment Agency

2004 Trueman, M.R.G. Audit of the Heritage Assets of the Non-Tidal River Thames, MS report for The Environment Agency & English Heritage

2008 Trueman M.R.G. *River Thames Paddle & Rymer Replacement Project Heritage Review* MS report for The Environment Agency

1984 Skempton, A.W. Engineering on the Thames Navigation, 1770-1845 *Trans Newcomen Society* **55** (1983-1984), 153-76

Websites: Wikipedia; www.thames-path.org.uk has detailed photographic coverage of walks up the river

Waterway: **Thames & Medway Canal**

Status:	Abandoned (part converted to railway)	
Overall Heritage Value:	1	
Owner/operator:	Thames & Medway Canal Association	
Line:	Gravesend to Strood	7 miles
Date of opening:	1824	
	Part closed 1847	
	Abandoned 1934	
Statutory designations:	Grade II	1

Summary Description and History:

The Thames & Medway Canal was originally some 7 miles long and cut across the neck of the Hoo peninsula, linking the River Thames at Gravesend with the River Medway at Strood. The canal was first mooted in 1778 as a shortcut for military craft from Deptford and Woolwich Dockyards on the Thames to Chatham Dockyard on the Medway, avoiding the 46 mile journey round the peninsula and through the Thames estuary. The canal was also intended to take commercial traffic between the two rivers. Initially designed by Ralph Dodd following an Act of 1800 the route was altered by Ralph Walker and a second Act in 1810 authorised the 2.2 mile long Strood Tunnel. When completed in 1824 Strood Tunnel was the second longest in the country and the largest bore. In 1845 a single-line railway shared the tunnel for a short time but after the South Eastern Railway bought the canal a double track was laid two years later.

The remainder of the canal, between Higham and Gravesend, continued to be used until 1934. It suffered bomb damage during World War II, and some areas have been back-filled or are choked with reed growth. The Strood canal basin, long orphaned by the loss of the tunnel, was back-filled in 1986 and has now been built over. Since 1976 the canal has been in the hands of the Thames & Medway Canal Association (TMCA), which has dredged some areas. British Rail restored one of the swing bridges. The towpath has recently been renovated for use by pedestrians and cyclists. In October 2004, the Gravesend canal basin was dredged, after which the lock gates into the Thames were renovated, enabling the basin to be used by boats from the river. The line of the canal has been protected from development since 1992.

Statement of Significance:

The portals of Strood Tunnel due to their exceptional proportions might merit assessment for protection.

Strood Tunnel

There is an Obelisk located near the Dung Wharf at Lower Higham on the Thames and Medway Canal with an inscription reading: “This boundary stone marking the line of jurisdiction of the cities of Rochester and London on the Medway and Thames Canal was erected AD1820. The Worshipful John Gibbs Mayor of the city of Rochester.”

(Left) The Obelisk, Higham
(IoE 454402 Ron Garvey)

Gravesend Basin (Wikipedia Clem Rutter)

Elements of considerable significance: Strood Tunnel ,Obelisk

Elements of some significance: Gravesend basin and lock (1393973)

Main References: P-T/RR

Websites: Wikipedia

Waterway:	Thames & Severn Canal	
Status:	Abandoned, part watered, part in-filled	
Overall Heritage Value:	4	
Owner/operator:	Cotswold canal Partnership	
Line: Wallbridge (Stroudwater) to Inglesham (Thames)		29 miles
Date of opening:	1789	
	Closed 1927 and 1933	
Statutory designations:	Grade II*	1
	Grade II	16

Summary Description and History:

Authorised by an Act of 1783 following a survey by Robert Whitworth and engineered by Josiah Clewes, the Thames & Severn provided the first southern cross-country link from the West Country to London. In its 29 miles it had 44 locks (of two different sizes to accommodate Severn trows and Thames barges), a 3817 yard tunnel at Sapperton, a small masonry aqueduct at Smerril, an interchange port at Brimscombe where it met the Stroudwater Canal and a 1.5 mile branch to a wharf in Cirencester.

The canal had five distinctive round house lock-keepers cottages some with inverted conical roofs to capture rainwater and handsome wharf houses cum warehouses at Cirencester, Kempsford and Cricklade.

(Left) Canal at Brimscombe 2006 (Wikipedia Blisco)

(Right) Wharf House Cricklade (IoE 317836 John Rendle)

Water supply and leakage on the summit level was always a problem and from the outset there was a pumping installation at Thames Head.

It was moderately successful but more as a local canal serving the Stroud Valley mills and suffered from railway competition to the extent that in 1882 the GWR acquired a majority shareholding. In 1895 these holdings were transferred to a trust which was taken over by Gloucestershire County Council in 1900. Despite efforts to put the canal in good working order commercial traffic dwindled with the last cargo

boats crossing the summit in 1911 and Council closed the line east of Chalford in 1927 and the remainder in 1933.

The Thames & Severn is a key component of the Cotswold Canals restoration scheme that seeks eventually to re-open most of the cross-country route. On the Thames & Severn itself much new work has been, and will have to be, undertaken as part of the channel has been designated by EA as a flood relief river while at Capels Mill the bed of the canal was used for the route of the Stroud by-pass requiring a new section of canal which opened in 2013.

Gates being fitted to Bowbridge Lock as part of restoration phase 1a (Wikipedia Geni)

See Stroudwater Navigation (above) and Viner (2002) for summary details of the Cotswold Canals Partnership, Stroud Valley Canal Company, voluntary trusts and input, funding history and current developments.

Statement of Significance:

As the southern first cross country waterway link the Thames & Severn is of considerable historical interest and, much loved, it has attracted considerable literary attention from the early 20th century onwards. Passing through magnificent countryside from the outset it was distinguished by its lock-keepers houses (listed) and wharf-houses though some of the latter have gone and by its broad locks built to two gauges. Sapperton Tunnel was the longest canal tunnel when it opened and is still fourth longest. The tribulations in driving and maintaining the tunnel have subsequently informed tunnel construction elsewhere.

Sapperton Tunnel South portal (IoE 12929 Lorna Freeman)and North Portal (IoE 128352 E. Currier)

The classical detailed South entrance (1089301) is Grade II* while the crenelated gothic North entrance (1089674) is grade II. The Wharf Houses such at Kempsford (1341290) and the Round Houses such as those at Latton (1023127) and Chalford (11713940 are also designated Grade II.

Chalford Round House (Wikipedia David Stowell)

Elements of considerable significance: Round lock-keepers cottages (1790), Sapperton Tunnel, wharf houses

Coates, Marston Maisey and Iglesham Roundhouses (Cotswold Canals in Pictures)

Elements of some significance: locks, bridges

Main References: **BR/P-T/RE/RR**

1969 Household, H. *The Thames & Severn Canal*

2002 Viner, D. *The Thames & Severn Canal History & Guide*

Websites: Wikipedia Cotswold Canals Partnership has details of restoration progress. Cotswold Canals in Pictures contains many images of locks etc.

Waterway: **Torrington or Rolle Canal**

Status:	Abandoned, part watered	
Overall Heritage Value:	3	
Owner/operator:	Clinton Devon Estate	
Line:		
Landcross to Rosemoor		6 miles
Date of opening:	1827	
	Closed 1871	
Statutory designations:	Grade II	3

Summary Description and History:

The Rolle Canal (or Torrington Canal) in North Devon, was unusual as it was built without an Act as it was constructed on private lands owned by its promoters – principally John Rolle 1st Baron Rolle. A tub-boat canal, it extends from its mouth into the River Torridge at Landcross 6 miles southwards to the industrial mills and corn-mills at Rosemoor, Great Torrington and beyond to Healand Docks and weir on the Torridge, where survive the ruins of Lord Rolle's limekilns.

Engineered by James Green it had a sea lock at Landcross, an inclined plane from the basin at Weare Gifford rising 60 ft to the canal level which crossed the Torridge by the five arched Beam Aqueduct to the terminus at Rosemoor where there were a bank of limekilns comprising five pots. It was built to carry coal and limestone to be burnt to improve the agricultural land and to link the industrial mills at Great Torrington to the port of Bideford. The inclined plane was powered by a water wheel and the canal received its water supply from a weir on the River Torridge which also supplied two mills with power.

(Left) Sea Lock Landcross 2006 (Wikipedia Geni)

(Right) Beam Aqueduct (Wikipedia Roger A Smith)

The canal was leased George Braginton in 1852 and then, back in the Rolle possession in 1865 and at their insistence, was incorporated in the proposal for a railway to Torrington. The canal closed in 1871but as the track followed the canal in several stretches, not sitting within the former canal but on elevated ground beside

it some parts remained in water. The Beam Aqueduct then carried a new drive to Beam Mansion.

Statement of Significance:

The canal is of considerable interest as it retains several features typical of Green's West Country canals. Some parts of the canal are still visible today, including the Beam Aqueduct (1104782), the sea lock survives, without its gates, as do parts of the inclined plane. The kilns at Rosemoor are ruinous while the fine Annery kiln (1326555) near Weare Giffard lies close to the old canal, between it and the River Torridge and is Grade II.

Limekilns (The Rolle Canal Company 2014)

The canal has been designated a Devon County Wildlife Site and parts of the canal have been under restoration since 1988. Clinton Devon Estates plan to restore the Beam estate section of the canal after 2013, and in 2000 completed restoration of the old stone bridge which took the old driveway from Beam Mansion northward over the canal, which passes under through a narrow tunnel while some work on the sea lock was carried out in 2006.

Elements of considerable significance: Beam Aqueduct, Weare Gifford Incline plane

Elements of some significance: Landcross sea-lock, limekilns, bridge at Beam

Main References: **P-T/RR**

2006 Scrutton, S. *Lord Rolle's Canal* Torrington

1970 Hughes, B. 'Aids to Recording : The Rolle Canal' *Industrial Archaeology* Vol. 7 No.1 pp 75-83

Websites: Wikipedia The Rolle Canal Company

Waterway:	**River Trent** (Shardlow to Gainsborough & Upper River)

Status:	CRT navigable waterway	
Overall Heritage Value:	3 M (BWB)	
Owner/operator:	CRT	
Line:		
	Shardlow to Gainsborough Bridge	69 miles
	Upper: Wilden Ferry to Burton on Trent	19 miles
Date of opening:	early 18th century	
Closed	(upper) early 19th century	
Statutory designations:	Grade II	5

Summary Description and History:

Although the River Trent has been the subject of various Acts of Improvement since the 17th century, it has in fact been used as a navigation since Roman times. It was at one time suitable for navigation as far as Burton-upon-Trent, where a short cut joined it to the Trent & Mersey Canal. However, the 19 mile section of river from here to Shardlow, though improved by two locks and cuts in the early 18th century, had become virtually disused by the early 19th century, an early victim of competition from the canal. Under various Acts from 1772 onwards the section below Wilden Ferry was improved starting with locks at Newark then following surveys by William Jessop and Robert Whitworth several cuts and locks, such the Beeston cut through Nottingham, built from 1793 onwards improved the river down to Gainsborough where tidal navigation began.

The navigation company prospered until the coming of the railways when traffic was badly affected and by the 1870s the river was in a bad way. After several changes in management it was only in the 20th century that significant improvements were achieved with the building of new larger locks and eventually the management passing to BWB and hence now to the CRT.

(Left) Newark Town Lock (Wikipedia David Merrett)
(Right) Stop Lock near Sawley (IoE 461796 Peter Graham)

Statement of Significance:

The present character of the main navigation owes most to the 20th century period and the present formation owes much to early 20th-century improvements when locks were built at Cromwell, Newark, Holme, Stoke Bardolph, Gunthorpe and Hazelford. Subsequent improvements led to enlarging of several locks and these locks and weirs with one or two exceptions, eg Sawley (1268447)) are large-scale, concrete, mechanised structures, with lock cottages in a brick or brick and rendered neo-vernacular 'standard design' style. These now have a 'period' value of their own and some of the reconstructions were alongside much earlier locks and these where they substantially survive would be of historical significance.

Some remains of earlier locks have survived when replaced by newer locks and these remains may be associated with engineers such as William Jessop and are hence of archaeological significance.

Some of the sluices of drains into the Trent have early fabric and bridges such as the Warping Drain and can be very substantial structures in their own right hence are Grade II.

Warping Drain Outfall Sluice (IoE 165191 Janet Roworth) and Snow Sewer/Warping Drain Outfall Sluice (IoE 165208 David Robson)

On the other hand some of the late 18th century bridges carrying the river towpath over side streams such as that near Burton Joyce (1268508) are modest affairs with single stone lintels.

(Left) Towpath Bridge over side stream (IoE 461751 Paul Alistair Bloomer)
(Right) Concrete Footbridge of 1915 (IoE 385076 Ralph Bennett)

The single segmental span reinforced concrete footbridge bridge of 1915 (1297721) near Newark is Grade II* is a striking early example of the structural use of reinforced concrete.

The Upper section of river is part of the CRT waterway and originally had two early 18th century locks built under an Act of 1699 obtained by Lord Paget but it is not known what survives of these.

Elements of considerable significance: remains of redundant locks eg Sawley and Newark Old Lock, concrete footbridge near Newark.

Elements of some significance: Towpath bridges but little otherwise on the navigation itself but riverside in Newark, including historic maltings/warehouses, dwellings, lock cottage and locks, Kiln Warehouse, Fiddler's Elbow Bridge and riverside in Gainsborough with historic maltings/warehouses.

Main References: **BR/P-T/RE**

Websites: CRT Wikipedia

Waterway: **Trent & Mersey Canal**

Status: CRT waterway
Overall Heritage Value: 5 (BW:H)
Owner/operator: CRT
Line:
Preston Brook to Derwent Mouth 93.5 miles.
Date of opening: 1777
Statutory designations: Grade II 172

Map showing the Trent and Mersey Canal at the time of its proposal. The building act was passed in 1766. The Trent and Mersey Canal is marked in red. (Wikipedia)

Summary Description and History:

The Trent & Mersey was one of the most important early 'pioneering' canal, known originally as the Grand Trunk Canal. Over 93 miles long with 74 locks it was part of Brindley's visionary Grand Cross linking Hull and Liverpool with Staffordshire industries and through its many connecting waterways bringing the Severn and the Thames into the inland navigation network. The Trent & Mersey has branches which include the Caldon Canal, and junctions with the Coventry, Staffs & Worcester, Macclesfield, Erewash, Bridgewater and Weaver (via Anderton Boat Lift).

Built under an Act of 1766 promoted by Josiah Wedgwood with Lord Gower as patron, the canal was engineered by James Brindley assisted by Hugh Henshall and involved driving the 2880 yard summit tunnel at Harecastle which was completed in

1775 three years after Brindley's death and a further four tunnels the longest of these being Preston Brook (1239 yards). Brindley died on 27 September 1772 by which time, 48 miles of the Grand Trunk Canal from Wilden Ferry to Stone was navigable, the length past Burton-on-Trent being completed in 1770.

The Harecastle Tunnel was a particularly difficult obstacle to clear and Brindley had made the fateful decision to adopt a narrow bore to take boats just 7ft wide. This would allow two such boats to pass his already determined wider locks to the Mersey at Runcorn and off the Trent. Built with narrow locks for economy reasons this canal was to set the pattern for the West Midland canals to be plied by narrow boats.

(Left) Brindley's south portal Harecastle Tunnel (Wikipedia Akke Monasso)
(Right) Dutton Lock covered dry dock, probably 1777, with shed and store-room by the London and North Western Railway Company late C19. (IoE 57506 Maurice Richardson)

The canal was very successful and led directly to the development of the area subsequently known as the Potteries. It was bought by the North Staffordshire railway in 1847 but continued to prosper as the railway worked it hard as an extension to its own system.

Traffic was heavy and freight movement was still considerable into the 1960s, with cargoes including coal, salt, beer and, of course, pottery. Nowadays the canal is an essential element in both the Cheshire and the Four Counties cruising rings.

The narrowness of Brindley's Harecastle was always a problem and Telford drove a new tunnel at Harecastle in 1827. At this time many of the locks were also doubled as were some of the bridges.

(Left) North portals of Brindley's and Telford's tunnels. (Wikipedia Akke Monasso)
(Centre) Locks of c.1772 and c.1830 Betchton (IoE 351212 Mr J M Pickering)
(Right) Malkin's Bank Bridge, Hassall (IoE 351201 J M Pickering)

Just north of Harecastle Tunnel, the Trent & Mersey features a 'flyover' junction. The Hall Green Branch leaves the T & M Mainline (which runs east to west here) on the south side, but then crosses over the main line by Poole Lock aqueduct and travels a short distance north to join the Macclesfield Canal at Hall Green Stop lock.

Statement of Significance:

The Trent & Mersey has a great many historic buildings, structures and canal-related features including Harecastle Old Tunnel (c1775) which was the first major canal tunnel and for its time was a great engineering work. Harecastle New Tunnel (1827) engineered by Telford is almost as important and prefigured much railway engineering to come. Both entrances to both tunnels are Grade II. The other tunnels such as Preston Brook, Barnton and Saltersford Tunnels dating from 1777 are also of great significance as amongst the earliest canal tunnels in the country. The Preston Brook and Barnton Tunnels have circular brick Ventilation Shafts (1244328) which may be original and are listed.

(Left) South portal, Preston Brook Tunnel (IoE 436331 Keith Walker)
(Right) Airshafts above Barnton Tunnel (IoE 449370 R.G. Noxon) and Preston Book Tunnel (IoE 429730 Keith Walker)

The aqueducts over the River Trent (1096525) and Dove are typical low-set Brindley structures, the one over the Trent with ten low segmental arches

Aqueduct over the Trent (IoE 82704 Geoffrey R Hood)

Four Barge Docks at the boatyard, Stone (IoE385986 Brian Peach)

Numerous late C18 bridges (rare survivors, albeit altered) form high value groups with locks and cottages built largely in local vernacular styles such as Colwich Lock group.

Canal settlements occur at Fradley where the Swan and its attached buildings are the most prominent of an interesting group of structures which include a maintenance yard at the junction with Coventry Canal, Stone with a series of covered dry docks (1297476), Arlewas where the canal shares the River Trent for a short distance and Preston Brook.

Swan Inn and workshops Fradley (IoE 272497 Dave Jones, 272498 Geoffrey R Hood

Shardlow is the most complete surviving example of a canal village, with over 50 Grade II listed buildings within the designated Shardlow Wharf Conservation Area of which 16 are directly canal related. The wharfs and associated warehouses each had designated functions, which included: coal; timber; iron; cheese; corn; and salt. Other business which developed alongside the port included: boat builders; ropewalks; stables; offices, including the head office site of the Trent and Mersey Canal. Typical warehouses are The Old Salt Warehouse (1088364), the Trent Corn Mill (1088364), Stores 1 and 2 (1088369 and 1205245) and iron warehouse (1334640) while there are three canal bridges and four mileposts.

Trent Corn Mills, Warehouse, Iron Warehouse (IOE 83168, 83201, 83197 Nigel Ward)

No 2 Store GV II Salt warehouse Late C18 (IoE 83186) 'Nos 1 and 3 Warehouses' 1792 (IoE 83196)

Rudyard Lake (in Staffordshire) which was formed in 1802 as a canal reservoir for the Trent and Mersey canal system via the Leek Branch. In 1823 Thomas Telford

was commissioned to improve the Dane feeder. Rudyard is the second largest of the English canal reservoirs. Dane feeder Cottage was built c. 1825 to house the employee of the Trent and Mersey Canal Company who maintained the feeder-channel to Rudyard Lake.

Canal warehouse late C18 (IoE 83194) Trent Corn Mill No 1 (former warehouse) 1816 (IoE 83195) Milepost (IoE 83160)

Elements of considerable significance: Harecastle Old and New Tunnels (1038558, 1210692). Preston Brook Tunnel and air shaft (1104925, 1130435) Saltersford Tunnel (1216526, 1227726) Barnton Tunnel(1252738, 1287612). Stone Boatyard and dry docks and associated workshops. Shardlow Canal settlement and warehouses. Fradley Junction and associated buildings. River Dove and River Trent (1096525) Aqueducts. Rudyard Reservoir and feeder canal.

(Left) Dane Feeder Cottage (IoE 58154 J M Pickering): (Centre) Fradley Junction (Wikipedia Ronhjones) (Right) Milepost near Stone (IoE 386043 Brian Peach)

Elements of some significance: Various lock / bridge / cottage groups. Remains alongside canal in Potteries. wharfs (eg Wheelock (1130331) and boat facilities eg Dutton Dock (1115471). There is a web based project recording and photographing all surviving distinctive mileposts numbering some 92.

Main References: **BR/P-T/RE**

1966 Hadfield, C. *Canals of the West Midlands* D & C

1979 Lindsey, J. *The Trent & Mersey Canal* D & C

Websites: CRT Wikipedia Trent & Mersey Canal Society

Waterway: **Ulverston Canal**

Status:	Abandoned	
Overall Heritage Value:	2	
Owner/operator		
Line:	Morecambe Bay to Ulverston	1.5 miles
Date of opening:	1796	
Closed	1945	
Statutory designations:	Grade II	1

Summary Description and History:

Built under an Act of 1793 and to a survey by John Rennie, the canal began at Hammerside Hill at Morecambe Bay and terminated at a basin and wharfs at Ulverston. At the seaward end there is a 112-foot (34 m) long sea lock, the only lock on the canal. A public swing bridge was built over the canal at Hammerside. The canal and basin attracted industries such as charcoal burning and hoop-making ship building, gas and chemical works, rail engineering works, and paper manufacturing.

(Left) Sea Lock (IoE 459889 CJ Wright)

(Right) Canal Basin (Wikipedia Yohan euan o4)

The opening of the Furness Railway in 1846 seriously damaged the profitability of the canal, which was eventually bought by the railway company. It was used commercially until the First World War and was officially abandoned at the end of the Second World War. Ownership has changed hands a couple of times GlaxoSmithKline bought it from the town council in 1974 who in 2009 transferred it along with a trust fund to Ulverston Canal Company, a company set up to manage the asset.

Statement of Significance:

Little of much significance survives other than the basin, a warehouse, the entrance lock (1374971) and a lock cottage though there is a council maintained footpath on the eastern side. There is also a rare and unusual rolling railway bridge and associated accumulator tower built in 1883 By the Furness Railway Company to a design by Frank Stileman. It carried a short length of line to Barsea (Priory Station) and was listed Grade II in 2012.

Elements of considerable significance: railway rolling bridge (1404328)

Elements of some significance: entrance lock and basin, lock cottage

(Left) Rolling Bridge (Cumbria Industrial Heritage Society): (Right) Lock Cottage (IoE 459890 CJ Wright)

Main References: BR/P-T/RR

Websites: Wikipedia

Waterway: **Waltham Abbey Royal Gunpowder Works**

Status: Disused and partly in-filled
Overall Heritage Value: 3
Owner/operator: WARGW
Line:
Internal works system off Lee Navigation original extent 5 miles
Date of opening: 1769, 1806, 1870s and 1888
Statutory designations: the site is a Scheduled Monument(1016618)

Summary Description and History:

The original course of the River Lea (the Old Barge River) lay close to and sometimes even through parts of the Gunpowder Mills for nearly a hundred years, until the new channel to the west was built in 1769. The Millhead Stream had been used to power gunpowder mills from 1662 onwards and by 1735 powered a series of mills along the Millhead drained to lower level leats on either side. These water channels were also used for the safe transport of volatile materials. The existing works were taken over by Crown and the Royal Gunpowder Works established in 1787.

Barge, Millhead Stream (RGMWA)

By 1800 the system had been further extended by the building of new mills on the banks of the old River Lea and the connection of these to the Millhead by canals. In 1806, the Powdermill Cut was dug to connect the Mills directly to the new Lee Navigation and enabled the transport of gunpowder by barge from the Grand Magazine at the north end of the Mills to the arsenals at Woolwich and Purfleet.

Gradually the system was enlarged notably in the 1870s until virtually all the process buildings were served by a waterway and the total length of canal exceeded 5 miles and there were four locks and three iron aqueducts within the works. Lower Island Lock allowed the powder mill boats connection between the Lower Island works and the South Site of the Royal Gunpowder Mills, which opened in 1888 as extensive Guncotton, Nitro-glycerine and Cordite works.

(Left) Canal lock of 1878-9 linking two levels of canal (RGMWA): (Right) Aqueduct 1878-9 (RGMWA)

Statement of Significance:

The Waltham Abbey Royal Gunpowder Works is an extensive site containing numerous designated buildings and structures and is of international significance. The waterway system is an integral part of the site and two of the locks, dating from 1878 and 1896 survive though now un-watered and the three iron aqueducts of 1878-9 also survive.

Edmonsey Lock, built in 1806 to overcome the 30 inch difference between the Millhead Stream and the Powdermill Stream which goes on to join the Lee Navigation just below Waltham Common Lock disappeared in the creation of the Lee Valley Flood Relief Scheme in the 1970s. Lower Island Lock, now lies under the M25.

Elements of considerable significance: the water channels and aqueducts

Elements of some significance: the two locks

Main References:

2013 Thomas, R. *The Waterways of the Royal Gunpowder Mills* (2nd ed.) Royal Gunpowder Mills

Websites: Royal Gunpowder Mills Wikipedia

Waterway: **Weaver Navigation**

Status:	CRT waterway	
Overall Heritage Value:	5 H (BWB)	
Owner/operator:	CRT	
Line: Weston Point to Winsford Bridge		20 miles
Date of opening:	Always open – improved 1730 onwards	
Statutory designations:	Scheduled Monument	1
	Grade II	27

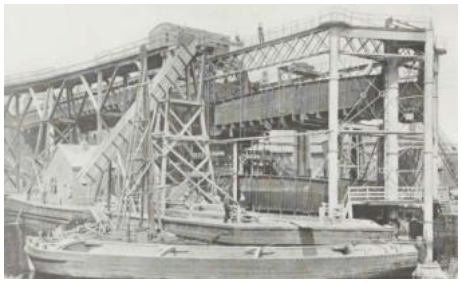
Summary Description and History:

The Weaver is a naturally navigable river subject to tidal limits and was first improved in the late C17 but not systematically until 1730s when Thomas Robinson designed 11 timber-sided locks. Improvements continued in the 1760s with first Henry Berry, then with Robert Pownall, engineers. The Trustees obtained a third Act on 8 August 1807, which authorised the construction of a cut from Frodsham to Weston Point. Initially, John Johnson the company engineer oversaw the work, but he was sacked in 1809 and Thomas Telford managed the project with Samuel Fowls as engineer. At Weston Point, a new lock connected the cut to a basin, and tide gates connect the basin to the Mersey. This cut was called the Weston Canal and was completed in 1810. The Weaver Navigation was improved throughout the 19th century notably in 1871-1897 the many of the structures were rebuilt by Edward Leader Williams, junior engineer.

(Left) Small Lock, Vale Royal Locks c.1860 (IoE 57325 Jim Spence)
(Right) Large Lock Vale Royal Locks c.1890 (IoE 57324 W. David Lowe)

Access to the navigation was improved for traditional canal boats with the opening of the Runcorn and Weston Canal, which was completed in 1859. (see Bridgewater Canal)The canal left the Weston Canal at Weston Point, and provided a link to Runcorn Docks, near which two flights of locks connected to the Bridgewater Canal. This link was severed in 1966,http://en.wikipedia.org/wiki/River_Weaver - cite_ note-jane8-7 when the Runcorn to Widnes road bridge was constructed. Half of the Runcorn and Weston Canal was filled in at the same time.

In 1875 the Anderton Boat Lift was opened linking the Weaver to the Trent & Mersey Canal 75 feet above.



Anderton Old Lift c.1900 before conversion (Waterways Archive)

Significant change occurred when the Manchester Ship Canal was opened in 1894. The tidal section of the river below Frodsham now flowed into the ship canal, rather than the River Mersey, and the exit lock from Weston Docks also joined the canal rather than the estuary. A new ship lock was constructed at Weston Marsh, which provided a more convenient route to the ship canal than the alternative route through Weston Point docks. The Weston Canal has been little used since.

Statement of Significance:

The Weaver has important waterway archaeology (from succeeding improvements) but its high heritage value is achieved by the uniform, quality engineering of the 19th century improvements especially those of the 1871-97 period. Everything is large scale by comparison with other UK canals. It has big locks with big masonry operated (originally) with water-powered Pelton Wheels and big weirs and sluices with architectural features such as Gothic traceried ironwork/rusticated piers.

(Left)Weir Hunts Lock, Northwich (IoE 57638 R G Noxon)
(Right) Flood Gates and Sluice Bridge, Winsford (IoE 57405 John Riley)

It has big swing-bridges of iron and steel such as in Northwich (1329879) which opened in 1899 and is one of the earliest electrically-powered swing bridges in Britain. New accommodation was also provided and there are good groups of locks/ lobbies/cottages as at Dutton Locks (1139034).

(Left) Town Bridge Northwich (IoE 57622 R.G. Noxon): (Right) Acton Swing Bridge 1932 (Geograph David Dixon)

Many of the locks, both small and large when doubled, and associated structures and swing bridges were designated in 1986.

Saltersford locks and toll house (IoE 402158 R G Noxon)

Navigation House and Clock Tower (IoE 57634, 57635 R.G. Noxon)

The Weaver Navigation Head Office (1139112), later BW NW Regional Office now CRT, is in Northwich and has a Board Room and Clock Tower (1161109).

Weston Point Dock is disused but retain large basins, swing-bridges and a very rare waterway chapel (1271140) in Gothic style.

The outstanding Weaver site shared with Trent & Mersey Canal is Anderton Boat Lift (1011152) which was originally hydraulically operated but, after problems with corroded cylinders, was converted to counterbalanced electric operation in

1910. The weight of this latter arrangement caused its own problems and though the lift operated until 1983 the problems finally caused it to be closed. A Scheduled Monument, after 19 years of closure it was rebuilt with Millennium and English Heritage funding and re-opened in 2002 to operate once again hydraulically.

(Left) Anderton Boat Lift after 1910 conversion (Waterways Archive)
(Right) 2002 Restored lift from canal level. (Wikipedia Mike Peel)

Dutton Horse Bridge (1139138) is a timber twin-span footbridge carrying the towpath across a subsidiary channel and dates from 1915–1919. It is by John Arthur Saner and is listed at grade II as one of the earliest remaining examples of a laminated timber structure, and is also believed to be the sole laminated greenheart timber bridge in the country.

Dutton Horse Bridge (IoE 57495 Maurice Richardson)

Elements of considerable significance: Anderton Boat Lift. Northwich Head Office and associated buildings and structures. Big swing-bridges and locks and sluices. Dutton wooden horse bridge (restored in late 1990s)

Elements of some significance: L C19 Weaver Navigation housing. Weston Point Dock. Minor equipment – eg WNC iron boundary posts / concrete distance markers / traffic lights at locks / lock lobbies.

Main References: BR/P-T/RE

Websites: CRT Wikipedia The River Weaver Navigation Society

Waterway: **Wey & Arun Junction Canal**

Status: Abandoned (part restored and watered)
Overall Heritage Value: 2
Owner/operator: various and the Wey & Arun Canal Trust
Line:
Newbridge (R.Arun) to Shalford (Godalming N.) 19miles
Date of opening: 1816
Closed 1871
Statutory designations: Grade II 2

Summary Description and History:

The Wey and Arun Junction Canal, surveyed initially by Josiah Jessop and built under an Act of 1813 connected the Arun at Newbridge to the Godalming Navigation near Shalford, south of Guildford. It opened in 1816 and had 23 locks but had water supply problems only partly alleviated by windmill pumps in 1833. It easily succumbed to railway competition and was officially Abandoned in 1868 and closed in 1871.

Without maintenance, the canal gradually became derelict over much of its length. However, since 1970, active restoration by The Wey & Arun Canal Trust has resulted in several miles of the waterway being restored to navigable standard. Work is continuing, with the ultimate aim of re-opening the entire canal to navigation. The Trust has reached agreements with several landowners to allow restoration work to be undertaken over half the length of the 23-mile canal. By 2009, twenty-four bridges had been reconstructed, eleven locks restored, two aqueducts re-instated, and several miles of canal bed cleared and dredged. A major reconstruction of the canal was required to pass under a lowered bridge at Loxwood but this was achieved in 2009. The scheme, which cost £1.9 million, was the winner in the Community category of the 2011 Waterways Renaissance Awards. The Awards are made annually by the Waterways Trust.

Statement of Significance:

Despite its minor significance as a waterway commercially, the Wey & Arun has achieved more recognition by literary mention in a book called The Thames to the Solent by Canal and Sea, which was published in 1868 by J. B. Dashwood and as part of P.A.L. Vine's *London's Lost Route to the Sea*.

The restoration, which was partly prompted by such literary works, has since 1970 been truly heroic but with so much rebuild few structures are designated other than the Fast Bridge (1294261).

(Left) Restored Loxwood Lock (Wikipedia geni)
(Right) Fast Bridge Alfold (IoE 291643 Tim Nichols)

Elements of considerable significance: Lordings Lock with waterwheel, Gosden Aqueduct

Elements of some significance: locks and bridges

Main References: **P-T/RR**

1965 Vine, P.A.L. *London's Lost Route to the Sea* D & C

1999 Vine, P.A.L. *The Wey & Arun Junction Canal* Tempus

Websites: Wikipedia The Wey & Arun Canal Trust

Waterway: **Wey & Godalming Navigations**

Status:	cruising waterway	
Overall Heritage Value:	3	
Owner/operator:	National Trust	
Line Weybridge (Thames) to Godalming		20 miles
Date of opening:	1653 and 1764	
Statutory designations:	Grade II	4

Summary Description and History:

The Navigations consist of man-made canal and adapted (dredged and straightened) parts of the River Wey. The Wey was the second river in England to be turned from wholly unnavigable to navigable for its main town. Improvements to the River Wey Navigation started in 1635 and under an Act of 1651were completed in 1653 with 12 locks between Weybridge and Guildford.

Under an Act of 1760 construction of the Godalming Navigation, a further four locks, was completed in 1764 extending to Godalming. Connections to the Basingstoke Canal and the Wey and Arun Junction Canal opened in 1794 and 1816 respectively. After a short period of prosperity in the early 19th century trade suffered severely from railway competition though the growth of pleasure traffic by the end of the century helped. From 1900 to 1963, the Wey Navigation was owned by the Stevens family, who were commercial carriers on the canal. Commercial traffic (save for exceptional loads for canalside buildings) ceased in 1983 and the Wey Navigation and the Godalming Navigations were donated to the National Trust in 1964 and 1968 respectively.

(Left) Catteshall Lock, Farncombe, (Wikipedia Simon Burchell)
(Right) Papercourt Lock (Wikipedia Colin Smith)

Statement of Significance:

The navigations are of considerable interest historically because of their early date but unfortunately the turf sided locks, two of which survived until 1966, have all been rebuilt in brick. Dapdune Wharf in Guildford although no longer used as a goods trans-shipment point, retains a smithy, a stable, and two of the only three

remaining Wey barges. At Coxes Lock near the junction with the Thames the flour mill complex was one of the largest inland mills in the country and is now listed and converted into apartments. Three aqueducts at Headly Park (1001783), Bramshott Court (1001784) and Radford Bridge, Liphook (1001785) are grade II while the Treadwheel Crane re-erected on Guilford wharf is Grade II*.

Treadwheel Crane
(Wikipedia Colin Smith)

Elements of considerable significance: Treadwheel crane, Guildford Wharf (1377866)

Elements of some significance: Headly Park, Bramshott and Radford Bridge Aqueducts.

Main References: **BR/P-T/RE**

Websites: Wikipedia

Waterway:	**Wilts & Berks Canal** (incl **North Wilts Canal**)

Status:	Abandoned canals (small sections restored and watered)	
Overall Heritage Value:	2	
Owner/operator:	various	
Line:		
	W & B C Semington to Abingdon	51 miles
	Chippenham branch	2 miles
	Calne branch	3 miles
	North Wilts Canal Swindon to Latton	8 miles
Date of opening:	W & B C	1810
	North Wilts	1819
Closed:	1914	
Statutory designations:	Grade II	4

Summary Description and History:

Engineered by Robert and William Whitworth, the Wilts & Berks Canal was built under an Act of 1796 to link the upper Thames to the Kennet & Avon Canal. Finally opened in 1810, it had 42 narrow locks and numerous lift bridges and with main branches to Calne (three locks) and Chippenham. The separately subscribed nine mile long North Wilts Canal which connected to the Thames & Severn Canal near Cricklade received its Act in 1813 and opened in 1819 with a further 12 narrow locks.

(Left) Wilts & Berks Canal Rushey Platt Swindon (Wikipedia Richard Corbin)
(Right) Moredun Aqueduct North Wilts Canal (IoE 317919 Chris Pocock)

Coal from the Somerset coalfield and agricultural produce were the main traffics but water supply was always a problem and a reservoir was built near Swindon in 1822. The Wilts & Berks Canal was never a great commercial success due to competition from the railways, especially the Great Western Railway from 1841 and through traffic had pretty much ceased by 1901. In that year the Stanley Aqueduct over the

River Marden collapsed; an event that proved to be the death knell of the canal. The canal was formally abandoned by an Act of Parliament in 1914. The Act was sponsored by Swindon Corporation, which gained control of all the land within its boundary. In other areas ownership returned to the owners of adjacent land.

From the early 1930s much of the canal was filled in, at Chippenham Wharf a bus station was built on the site, the buried wharf being uncovered briefly during redevelopment in 2006. During the Second World War some of the locks and other canal structures were used for army exercises and damaged by explosives. Very little of the old canal survived in usable form, but long rural stretches are clearly delineated.

In 1977 the Wilts & Berks Canal Amenity Group was formed to protect what remained of the canal, and to restore short sections for their amenity value and in 1991 the WRG mounted its 21st anniversary 'Big Dig' near Wantage involving 1000 enthusiasts. The Wilts & Berks Canal Trust was formed in 1997 as a partnership between the W & B Canal Amenity Group and the district and county councils covering the route of the canal. The aims of the Trust were to protect, conserve and improve the canal and its branches, with the ultimate aim of restoring the whole canal to navigable Status:. However, the legal structure of the group was unsuitable for accessing some of the grants available for canal restoration, and so it was reformed into the Wilts & Berks Canal Partnership in 2001.

(Left) Lift Bridge and Lock Foxham (Geograph Vieve Forward)
(Right) New Bridge at Wichelstowe Swindon (Geograph P L Chadwick)

As of 2006, a number of bridges and locks had been rebuilt and at least 8 miles of the canal were in water. In 2009 Double Bridge and a short section of re-watered canal to the south of Pewsham was opened and extended to the foot of Pewsham Locks in 2012. Moredon Aqueduct has also been restored.

Statement of Significance:

The Moredun Aqueduct (1198134) carrying the North Wilts Canal over the River Ray built c.1819 is the only significant monument on the North Wilts Canal which linked the Wilts and Berks Canal at Swindon to the Thames and Severn Canal at Latton and is Grade II as is the canal bridge (1355880) near the County Roundabout in Swindon.

On the Wilts & Berks the pair of canal cottages (1363752) at Dauntsey Lock are part of one of the last remaining groups of canal buildings on the Wiltshire and Berkshire Canal and the canal bridge near Shrivenham are also Grade II.

(Left) North Wilts Canal Bridge, Swindon (IoE 318817 Tim Belcher)
(Right) Canal Bridge Shrivenham (IoE 250628 Derek Gale)

The remains of a small canal maintenance facility at Pewsham locks comprising a dry dock, saw pit and limekiln is of some rarity. The cast iron bridge over the River Ock at Abingdon was 'ERECTED BY THE WILTS & BERKS CANAL COMPANY AD 1824 , CAST AT ACRAMANS BRISTOL' is associated with the Thames rather than the canal.

These Wilts & Berks canals and branches have more amenity importance than structural heritage significance and there are ambitious long-term restoration aspirations to restore the entire waterway. The considerable amount of enthusiast and volunteer efforts over the last 40 years have led to several sections, including locks, having been restored to waterway use. There was even a IWA Trailboat Rally in 1998 and in 2004 the canals were included in the BW list of 18 potential restoration schemes and in the refined list of eleven priority schemes. In 2006 the IWA Jubilee Grant was awarded to the W & B Trust to create a new link from the canal into the Thames south of Abingdon Jubilee Junction opened in August 2006. This modern chapter of these waterways' history is recognised in the Overall Heritage grading of 2.

Elements of considerable significance:

Elements of some significance: Moredon Aqueduct, many bridges and locks (some restored) Lime kiln, sawpit and dry dock at Pewsham locks

Main References: **BR/P-T/RE/RR**

1971 Dalby, L.J. *The Wilts and Berks Canal* Oakwood Press

2000 Dalby, L.J. *The Wilts and Berks Canal* 3rd ed Oakwood Press

1999 Small, D. *The Wilts & Berks Canal* Tempus

2010 Small, D. *Wilts and Berks Canal Revisited* The History Press.

Websites: **Wikipedia** **Wilts & Berks Canal Trust**

Waterway: Wisbech Canal

Status:	abandoned and in-filled	
Overall Heritage Value:	0	
Owner/operator	various	
Line:	Wisbech (R. Nene) to Outwell	5 miles
Date of opening:	c 1797	
Closed:	1922	
Statutory designations:	none	

Summary Description and History:

Built under an Act of 1794 the five mile long canal had entrance locks off the R. Nene and the Well Creek. Because of the low level of the Fens landscape, the canal was constructed on embankments for most of its 5.25 mile (8.4 km) length, and was opened in 1797. Flood locks were constructed at both ends of the canal.

Paddle gear and stonework, Outwell flood lock (Wikipedia Evelyn Simak)

The one at Outwell was 97 feet long, but the one at Wisbech was only 50 feet, and so, longer boats wishing to enter or leave the canal at the Wisbech end had to wait for the levels in the river and the canal to equalise, at which point both sets of gates could be opened. It was never very prosperous but traded for over a century with traffic ceasing in 1922 and abandoned formally in 1926. The canal remained in a derelict state until the early 1970s, when much of it was filled in for roads and landfill.

Statement of Significance:

There are remains of paddle gear and some stonework of Outwell flood lock.

Elements of considerable significance:

Elements of some significance: Outwell flood lock

Main References: BR/P-T/RE/RR

Websites: Wikipedia

Waterway: Worcester & Birmingham Canal

Status:	CRT waterway	
Overall Heritage Value:	4H (BWB)	
Owner/operator:	CRT	
Line:		
	Gas Street Basin Birmingham to R. Severn Worcester	30 miles
Date of opening:	1815	
Statutory designations:	Grade II*	1
	Grade II	69
	(58 within CRT SW&S Waterways)	
CRT Architectural Heritage Survey:		234 entries within SW&S Waterways

Summary Description and History:

Built under an Act of 1791, the Worcester & Birmingham had a succession of engineers – Thomas Cartwright followed by John Woodhouse and William Crosley – and provided a more direct line via 58 locks from Birmingham to the River Severn. The canal links with the Droitwich Canal, the Stratford on Avon at Kings Norton, the Dudley Canal at Selly Oak and the BCN at Gas Street.

The Offices and Roving Bridge, Kings Norton Junction (IoE 217364, 217365 Peter Garratt)

The canal finally opened in 1815 and had been expensive to build, with 5 tunnels, that at Tardebigge largely cut through solid rock.

(Left) Tardebigge Tunnel South Portal (IoE 156244 Geoff Dowling)
(Right) Wasthill Tunnel, Kings Norton (IoE 217602 Walter Chinn)

The 2,726 yds long Wasthill Kings Norton Tunnel has an N portal given architectural treatment, there are two tunnels above Tardebigge and the short Dunhampstead Tunnel (230 yards) near Hanbury Wharf while the even shorter Edgbaston Tunnel (105yards) is the only one to have a towpath.

The Tardebigge Flight of 30 locks is the longest in the UK and the deep Top Lock was the site of an experimental canal lift and had a beam engine pumping station.

Lock Cottage Tardebigge Flight
(IoE 355192 Geoff Dowling)

Though trade suffered with railway competition from the mid-19th century, commercial traffic lasted on the canal to 1961and the canal is now a popular cruising route.

Statement of Significance:

The BW assessment of its significance in 1999 noted that the Worcester & Birmingham Canal has a number of significant heritage features of high value and a distinctive 'snipey brick style' of its own. There are several clusters with significant group value such as that at Tardebigge where the flight forms a group with Tardebigge Yard, Tunnel, Reservoir, pumping station (much altered) and several lock cottages. Indeed a good number of cottages survive throughout the canal and these have historic interest and important group value eg Tunnel Cottages at Wasthill (1076185).

(Left) The Engine House Tardebigge (IoE 156241 Helmut Schulenburg)
(Above) Workshop Building,Tardebigge (IoE 156243 Geoff Dowling)

At the Diglis end of the canal the Dock Basin also has a high concentration of related waterway buildings and structures.

(Above)Diglis Dock Basin (Wikipedia Philip Halling)
(Right) Barge Lock Diglis Basin (IoE 147276 Richard Sabey)

At the Birmingham end lies the busy (and much altered) Gas Street Basin area with surviving cottage/office/outbuildings and associated canal buildings.

(Left) Gas Street Basin, Birmingham (Wikipedia Oosoom)
(Right) Guillotine Lock (Wikipedia Oosoom)

Such is the quality and condition of the locks and bridges that most are Designated Grade II as is the entrances to Wasthill Tunnel (1343141) and Tardebigge Tunnel (1348589). The Barge Locks (1389765, 1389766) from the River Severn into Diglis Basin and the cottages (1389768) and workshops (1389769) at the basin are also Grade II. The Guillotine Lock at the junction with the Stratford Canal is Grade II* but is more properly considered as on the Stratford Canal.

Elements of considerable significance; Tardebigge Yard (1168084) Tunnel, Lock flight, cottages,/ reservoir and Engine House (1168077).

Diglis Locks and basin. Junction House (1291474), King's Norton Guillotine Lock Grade II* (1076290), Holliday Street Aqueduct (1076303)

Elements of some significance: numerous bridges and locks

Main References: **BR/P-T**

1999 Shill, R. *Birmingham's Canals* Sutton

Websites: CRT Wikipedia

Waterway: **Worsley Underground Canals**

(see **Bridgewater Canal**)

Waterway: **Rivers Wye and Lugg**

Status:	former river navigation	
Overall Heritage Value:	1	
Owner/operator:	EA	
Line:		
Wye	Severn to Hereford	69 miles
	Lugg to Leominster	11 miles
Date of opening:	1727 onwards	
	disused 1855 onwards; by 1876 above Tintern	
Statutory designations:	Grade II	1

Summary Description and History:

Improvements were sanctioned to this ancient waterway in 1662 but little done until an Act of 1727 after when boats could reach Hereford and on up, via a river lock on the Lugg (improved by half locks or watergates) to Leominster. Locks, probably flash locks, were variously employed to improve navigation in the late 17thcentury but in the early 18th century all these and mill weirs, were removed except for that at New Weir Forge below Goodrich which survived until about1815.

Traffic increased when a 37-mile horse towpath was built in1811 from Lydbrook up to Hereford but railway competition from the mid 1850s caused traffic to decline drastically. The lowest five mile on the Lugg remained navigable until about 1860. When the Wye Valley Railway opened in1876 river traffic ceased in all but the lowest reaches below Tintern. The rivers are still used by small recreational boats

Statement of Significance:

A pound lock (1348710), possibly early 18th century with stone walls of lock chamber flank banks of River Lugg with traces of position of lower lock gate. In poor condition but an interesting survival of the navigation of the Lugg and listed Grade II.

Lock on Lugg near Mordiford (IoE 154913 Les M. Kedward)

Elements of considerable significance:

Elements of some significance: remains of the pound lock on the Lugg at NGR 569375

Main References: **EP-T**

Websites: Wikipedia

SMALL ABANDONED CANALS NOT INCLUDED ABOVE

(There are numerous small canals, often privately built, which do not fit with the criteria employed for this Overview. Andy Wood's Abandoned & Vanished Canals of England published in 2014 is a valuable source for information on these waterways and any significant heritage features he mentions are noted.)

Adelphi Canal, north Derbyshire

Beaumont Cut, Essex (Wharf and Limekiln AM?)

Braunton New Cut, north Devon

Brown's Canal, Somerset

Cann Quarry Canal, Devon

Cassington Cut, Eynsham, River Thames

Chillington Hall Canal, south Staffordshire

Cinderford Canal, Forest of Dean

Cod Beck Navigation, north Yorkshire (remains of Thirsk wharf and only lock)

Compstall Navigation, nr Marple (leat in Etherow Country Park)

Cowbridge Drain, Lincolnshire

Eardington Forge Canal

Emmet's Canal, nr Bradford

Exeter & Crediton Canal, (slight lock remains near Exe Bridge)

Fitzwilliam's Canal, South Yorkshire (amenity waterspace)

Fleet (New) Canal, London (remains of canalised river which is now covered over)

Galton's Canal, Somerset Levels

Greasborough (Park Gate) Canal nr Rotherham

Grosvenor Canal, London (entrance lock and truncated basin restored as features)

Hollingwood Common Canal, nr Staveley (slight remains of this colliery level canal)

Hulme Locks Branch Canal, Manchester (derelict remains of locks and branch)

Kensington Canal, London

Mardyke canal, Essex (navigable drains which also served Purfleet Magazine)

McMurray's Canal (Wandsworth Cut), London

Mundon Canal, Essex (entrance lock revealed when converted to sluice for drainage works)

Parnall's Canal, Cornwall (early, mostly underground, adit used to remove spoil from mine)

Pensnett (Lord Wards) Canal, West Midlands (slight remains of basin and in-filled course)

Pidcock's Canal, Lydney (short section still watered)

Pudding Mill River east London (in-filled for Olympic Park, footbridge retained as feature)

Rainhill Rock Quarry Branch, Yorkshire (branch off L & L Canal, a steep sided ravine cut)

Romford Canal, Essex

Royal Arsenal (Ordnance) Canal, Woolwich (remnants of entrance lock and an urban landscaped section in water)

Runcorn & Latchford Canal, Cheshire (mostly closed and used partly for route of Manchester Ship Canal and short remaining sections now landscaped.)

Whitminster (Cambridge's) Navigation

Woodeaves Canal, Derbyshire

APPENDIX A

Waterways Covered by the Overview: Introduction and Scope

Criteria

To qualify for inclusion on the List navigable waterways should be mentioned in at least two out of four key references – Bradshaw, Rees, Paget-Tomlinson and Russell.

The main List includes several entries with multiple waterway such as the Aire & Calder, the BCN and the Grand Union and therefore the133 entries contain 212 named waterways.

KEY

Owner/Status:	CRT	Canal & Rivers Trust
	EA	Environment Agency
	OT	Other, private etc.
	ABND	Abandoned
	DER	derelict – archaeological remains

Significance:	**Overview**	**BW rating (1999)**
	5 exceptional	(where applicable)
	4 high	H: high
	3 medium/high	M: medium
	2 medium	L: low
	1 low	n: not BWB
	0 insignificant	

IWAC Strategic Significance (restoration projects 2001)

N	National
R	Regional
Lo	Local

The International Canal Monuments List

A score aggregating 4 categories x3 levels of importance – max 12, where a waterway is mentioned under more than one type of structure/feature eg lock, aqueduct, lift etc or type of canal/complex etc, the highest score is entered on the List.

Categories:	1	A masterpiece of human creative genius;
	2	Exerted great influence on developments of technical importance;
	3	outstanding example of structure illustrating a significant stage in history;
	4	Associated with developments of outstanding universal significance.
Qualities:	*	some international importance
	**	great international importance
	***	outstanding international importance

Refs:	BR	Bradshaw (1904)
	P-T	Edward Paget-Tomlinson (1994)
	EDW	L A Edwards Inland Waterways of Great Britain (1985)
	RR	Ronald Russell (1971)
	D&C	detailed volume
	DB	included in separate dedicated book
	rchs	Railway & Canal Historical Society Journal
	Newc	Transactions of the Newcomen Society
	IAR	Industrial Archaeology Review
	SF	Stuart Fisher – River Navigations
	McK	Shell Book of Inland Waterways, Hugh McKnight (1975)
	TT	The Times Waterways of Britain
	JP	Joseph Priestley 1831
	RE	Rees Encyclopaedia

The lines of most waterways can be found on Google Earth Canal Maps which seeks to map all the canals of the UK, including all the derelict and in-filled ones. The Association of Inland Navigation Authorities (AINA) has produced a map showing the 2012 management of navigable inland waterways.

Since the overview was first compiled the Inland Waterways Association has produced the Inland Waterways Directory of Great Britain which can be downloaded from the IWA website. The website also contains lists of *Restored Waterways*, *Waterways Currently Under Restoration* and *Waterways Proposed for Restoration*. In the List of Restored Waterways where a waterway was restored in stages, the date shown is when the full length became available for navigation. Links within the list of *Waterways Currently Under Restoration* provide details for the individual projects where waterways restoration is underway and includes a summary about the waterway, historical information and photo gallery. The list of W*aterways Proposed for Restoration* has information on waterways where physical waterway restoration work has not yet started to any substantial extent.

Waterway	Owner/ Status	Sign KF/BW	Refs
R. Adur & Baybridge C	EA	1/n	BR/P-T/ McK/RE
Aike Beck	EA?	0/n	P-T
Aire & Calder	CRT	3 /M	BR/P-T/DB/ McK/TT/JP/RE
inc Selby Canal		1/L	
Wakefield Branch		4	
River Aire		2	
New Junction Canal		2	
Knottingley-Goole Canal		4	
Ancholme Nav	EA	2/n/Lo	BR/P-T/rchs34/SF/ McK/RE
Andover Canal	ABND	1/n	P-T/ RR/RE
River Arun	EA	3/n	BR/P-T/ McK/RE
Ashby Canal	CRT	3/M/Lo	P-T/ McK/RE
Ashton Canal (& Branches)	CRT	4/M	BR/P-T/ McK/ TT/RE
River Avon (Warwicks)	AVT	2/n/N	BR/P-T/SF/ McK/RE
River Avon (see K &A)	CRT		BR/P-T/ McK/RE
Aylsham/Bure	Broads	1/n/L	BR/P-T/SF
Barnsley Canal	ABND	2/n/R	BR/P-T/RR
Basingstoke	OT	3/n/L	BR/P-T/DB/ McK/RE
Beverley Beck	OT	1/n	BR/P-T/DB/ McK
BCN s per Bradshaw			BR/P-T/DB/ McK/TT/JP/RE
(excl minor branches):			
Main Line	CRT	5/H/6	
Soho Branch Loop			IAR 8 No 1
Old Main Loop	CRT		
Engine Arm Branch			
Spon Lane Locks Branch			
Titford Canal		3/M	
Oldbury Loop			
Netherton Tunnel Branch			
Dudley Canal No.1	CRT	3/M/4	ICM
Dudley Canal No.2	CRT	1/L/R	
Tipton Green			
Wednesbury Old Canal	CRT		
Walsall Canal	CRT	3/M	
Bentley Canal			
Tame Valley Canal	CRT	3/M	
Rushall Canal	CRT	2/M	

Waterway	Owner/ Status	Sign KF/BW	Refs
Birm & Fazeley Canal	CRT	3/M	
Digbeth Branch			
Wyrley & Essington Canal	CRT	3/L/N	
Sneyd & Wyrley Bank Canal			
Daw End Branch	CRT		
Anglesey Branch	CRT		
Cannock Extension Canal	CRT		
Birm. & Liverpool Junction (see Shropshire Union)			BR/P-T
Birm & Warwick Jnc Canal (see Grand Union Canal)			BR/P-T
Blyth Navigation	EA	1/n/L	P-T/AW
Bradford Canal	OT	1/n	BR/P-T/RE/RR
Bridgewater Canal	OT	5/n/9	BR/P-T/ McK/TT/RE
inc: Hulme Locks B			
Stretford & Leigh B			
Preston Brook B			
Runcorn & Weston B			
Mersey & Irwell Nav			
Bridgwater & Taunton Canal (inc River Tone)	CRT	3/M	BR/P-T/DB/ McK/TT/RE
Bude Canal	OT	3/n/N	BR/P-T/DB/ McK
R. Bure (see Aylsham)			BR/SF
Caistor Canal	ABND	2/n	P-T/RR/RE
Calder & Hebble Nav	CRT	5/H	BR/P-T/db/ McK/RE
Caldon Canal (T&MC)	CRT	4/H/L	BR/P-T/ McK
R. Cam	EA	2/n/L	BR/P-T/RE
Carlisle Canal	OT	2/n	P-T/RR/DB
Chard Canal	OT	2/n	P-T/RR
Chelmer & Blackwater Nav	IWA	3/n/L	BR/P-T/SF/ McK/TT/RE
Chester C (see Shrops Union)			P-T/DB/RE
Chesterfield Canal	CRT	4/H/N	BR/P-T/Newc72/rchs34/TT/ RE
Chichester Canal (see Ports & Arundel Canal)			BR/P-T/RR/ McK
Coombe Hill Canal	ABND	0/n	P-T/RR/RE
Coventry Canal	CRT	4/M	BR/P-T/ McK/TT/RE

Waterway	Owner/ Status	Sign KF/BW	Refs
Cromford Canal	DCC	4/L/N	P-T/RR/Newc/rchs43/TT/ RE
Croydon Canal	OT	0/n	P-T/RR/RE
Dearne & Dove Canal	OT	2/n	BR/P-T/RR/RE
Derby Canal	ABND	1/n/R	BR/P-T/RR/RE
Derwent Nav (E.Yorks)	OT	2/n	BR/P-T/SF/ McK/RE
Dick Brook (Severn)	ABND	2/n	P-T/rchs
Donnington Wood Canal	ABND	2/n	P-T/RE
Dorset & Somerset Canal	DER	4/n/L	P-T/RR/RE
Driffield Nav.	OT	2/n/L	BR/P-T/DB/ McK/RE
Droitwich Canals	CRT	3/n/N	BR/P-T/RE
Erewash	CRT	2/L	BR/P-T/ McK/RE
Exeter Canal	OT	4/n	BR/P-T/ McK/TT
Fletchers Canal (MB&BC)	ABND	0/n	P-T/RR
Foss Nav (Yorks)	OT	2n	BR/P-T/ McK/RE
Fossdyke Nav. inc Witham Nav	CRT	2/L	BR/P-T/ McK/RE
Glastonbury Canal	ABND	0/n	P-T/RR
Glasson B. (see Lancaster Canal)	CRT		BR/P-T
Gloucester & Sharpness Canal	CRT	5/H	BR/P-T/DB/iar 11/ McK/RE
Grand Junction Canal (see Grand Union Canal)			BR/P-T/RE
Grand Surrey Canal	ABND	0/n	BR/P-T/RE
Grand Union Canal	CRT		BR/P-T/DBs/ McK/TT
incl: Grand Junction Canal		4/H	DB/RE
Grand Union Canal (Old)		4/H	
Leicester Line		4/H	DB/RE
Loughborough Nav		2	DB/RE
Paddington Arm		2/L	
Regents Canal and basins		3/H	
Warwick & Birmingham		4	
Warwick & Napton		3	
Aylesbury Arm		1/L	
Buckingham Arm		1/n/L	
Hertford Union		3/n	
Market Harborough Arm		2/n	

Waterway	Owner/ Status	Sign KF/BW	Refs
Northampton Arm		2/n	
Slough Arm		0/n/N	
Welford Arm		1	
Wendover Arm		2/ L	
Grand Western Canal	DCC	4/n/N/6	IMC/P-T/RR/DB/rchs35/RE
Grantham Canal	CRT	3/L/R	BR/P-T/RR/RE
Great River Ouse (see Ouse (Great))			
Gresley's Canals (N-u-L)	ABND	0/n	P-T/RR/RE
Hackney Canal (see Stover Canal)			BR/P-T
Herefords & Gloucs Canal	ABND	2/n/R	P-T/RR/DB/TT/RE
Horncastle Canal	ABND	1/n/L	P-T/RR/rchs34/RE
Huddersfield Broad Canal	CRT	4/M	BR/P-T/ McK/RE
Huddersfield Narrow Canal	CRT	4/H/N	BR/P-T/db/TT
Ipswich & Stowmarket N.	EA?	1/n/L	BR/P-T
River Irwell (see Bridgewater)			RE
River Itchen (Hants)	ABND	1/n	P-T
River Ivel	ABND	1/n/L	P-T
Kennet & Avon Canal (inc. Kennet N and Avon N)	CRT	5/H/5 ICM3	ICM/BR/P-T/DBs/iar 17&19/ TT/RE
Ketley Canal	ABND	1/n	P-T/RE
Lancaster Canal	CRT	5/H	BR/P-T/DB/ McK/TT/RE
inc. Glasson Branch		3/H	
Ribble Link		N/A/N	
R Larke	EA	1/n/L	BR/P-T/RE
Lee Navigation inc Limehouse Cut	CRT	3/H	RE
Leeds & Liverpool Canal	CRT	5/H	BR/P-T/DB McK/TT/RE
inc. Leigh Branch		2	
Rufford Branch		3	
Liverpool Canal Link		N/A/R	
Leominster Canal	ABND	2/n	P-T/RR/rchs 32/TT/RE
Leven Canal	ABND	1/n/L	BR/P-T/DB/RE
Liskeard & Looe Canal	ABND	1/n/L	P-T/RR/RE
Louth Nav.	EA?	3/n/L	BR/P-T/RE
Lydney Canal (inc Pidcock's Canal)	EA	1/n	BR/P-T/ McK
Macclesfield Canal	CRT	4/H/R	BR/P-T/rchs33/ McK

Waterway	Owner/ Status	Sign KF/BW	Refs
Man. Bolton & Bury Canal inc Fletchers Canal	ABND	3/n/R	BR/P-T/RR/RE
Man & Salford Jcn Canal	ABND	2/n	P-T/RR
Manchester Ship Canal (see also Bridgwater)	OT	4/n	BR/P-T/DB/ McK
Market Weighton Canal	EA	2/n	BR/P-T/RR/ McK/RE
Melton Mowbray Nav	EA?	1/n/L	P-T
River Medway (upper)	EA	1/n	BR/P-T/ McK/RE
Montgomery Canal (English section)	CRT	3/H/N	BR/P-T/DB
River Nene	EA	3/n	BR/P-T/SF/ McK
Newdigate Canals	ABND	1/n	P-T
Newport Pagnell Canal	ABND	0/n	P-T/RR
North Walsham & Dilham	OT	1/n/L	P-t/RR
Nottingham & Beeston Canal (and Nottingham Canal mostly abandoned)	CRT	3/M	P-T/RE
Nutbrook Canal	ABND	1/n	P-T/RR/RE
Oakham Canal	ABND	1/n	P-T/RR/RE
River Ouse (Great)	EA	2/n	BR/P-T/EDW/McK
R Ouse (upper) Sussex	EA	1/n/L	P-T/ McK/RE
R. Ouse Yorks & cuts (inc Ure Nav. & Ripon Canal)	CRT	3/n	BR/P-T/SF/ McK/RE
		2/L	
Oxford Canal	CRT	4/H	BR/P-T /DB/ McK/TT/RE
Par Canal	ABND	0/n	P-T
R. Parret inc Westport Canal	EA	3/n	BR/P-T/RE/RR
Peak Forest Canal	CRT	4/H	BR/P-T/rchs33/ McK/TT/ RE
Pocklington Canal	CRT	3/M/N	BR/P-T/DB/ McK/TT
Portsmouth & Arundel Canal	ABND	2/n/R	P-T/RR/RE
Rochdale Canal	CRT	4/n/N/9	ICM/BR/P-T/ McK/TT/RE
Royal Military Canal	EA	3/n	BR/P-T/RR/ McK/RE
St Columb Canal	ABND	1/n	P-T/RR
St Helens Canal	ABND/ CRT	3/n/R	BR/P-T/RR/DB/RE
(Sankey Brok Nav)			
River Severn	CRT	3/L	BR/P-T/rchs34/SF/ McK/RE
Sheffield & S Yorks Nav	CRT	3-/M	BR/P-T/db/ McK

Waterway	Owner/ Status	Sign KF/BW	Refs
inc: Sheffield Canal	2/M		
R Don Nav			
Stainforth & Keadby Canal	2/M		rchs35
Sheffield & Tinsley Canal	2/M		
Shrewsbury C	ABND	4/n/N	BR/P-T/RR/DB/RE
inc Wombridge Canal			
Shropshire Canal	ABND	3/n	BR/P-T/RR/DB/RE
Hay Incline	4/n/8		
Shropshire Union Canal	CRT	5/H/8	ICM/BR/P-T/rchs/ McK/TT
inc Birmingham & Liverpool Jn			
Chester Canal			
Ellesmere Canal		4/H/8	ICM/BR/P-T/rchs 28
Middlewich Branch		2/M	
Newport Branch	ABND	2/n/N	
Llangollen Canal (English Section)	CRT	4/H/L/10	ICM/BR/P-T/DB/ McK/TT
Sleaford Canal	EA? ABND	2/n/R	P-T/RE
River Soar (see GUC)	CRT	2/M	
Somerset Coal Canal	ABND	4/n/R	BR/P-T/RR/DB/RE
Southampton & Salisbury C.	ABND	1/n	P-T/RR/DB/rchs32/RE
Staffs & Worcs Canal	CRT	5/H	BR/P-T/DB/Newc75/ McK/ TT/RE
Stamford Canal	ABND	2	
Stourbridge Canal	CRT	3/M	BR/P-T/ McK/RE
Stourbridge Extension C.	CRT+	1/n	BR/P-T
Stover Canal	ABND	3/n/L	P-T/RR/RE
Stratford Canal (N & S)	CRT	4/H	BR/P-T/DB/ McK/RE
Stroudwater Nav.	ABND	3/n/N	BR/P-T/RR/DB/RE
Tamar Manure Nav.	EA	1/n	BR/P-T/RR/RE
Tavistock Canal	OT	4/n	P-T/RR/TT/RE
River Tees	CRT	2/n	P-T/SF/ McK/RE
River Thames	EA	4/n	BR/P-T/Newc 55/db/SF/RE
Thames & Medway C	ABND	1/n/L	P-T/RR/RE
Thames & Severn	OT	4/n/N	BR/P-T/RR/DB/TT/RE
Torrington or Rolle Canal	ABND	3/n	P-T/RR

Waterway	Owner/ Status	Sign KF/BW	Refs
River Trent (& upper)	CRT	3/M	BR/P-T/SF/ McK/TT/RE
Trent & Mersey Canal	CRT	5/H/7	ICM/BR/P-T/ McK/TT/RE
inc. Hall Green Branch		3	
Ulverston Canal	ABND	2/n	BR/P-T/RE
Waltham Abbey RGW	OT	3	
River Weaver	CRT	5/H/8	ICM/BR/P-T/SF/ McK/TT/ RE
Wey & Arun Junction C	ABND	2/n/N	P-T/RR/DB
Wey & Godalming Nav	NT	3/n	BR/P-T/SF/ McK/RE
Wilts & Berks Canal inc North Wilts Canal	ABND	2/n/N	BR/P-T/RR/DB/Newc76/RE
Wisbech Canal	ABND	0/n	BR/P-T/RR/RE
Worcester & Birmingham Canal	CRT	4/H	BR/P-T/ McK/RE
Worsley Underground	ABND	4/n/N/6	ICM/P-T
Rivers Wye and Lugg	ABND	1	

TOTAL ENTRIES 133 covering 212 waterways

The waterways detailed in the Gazetteer total 4195 miles of which some 1400 miles are abandoned and unnavigable. Half of these latter are still watered while the rest are now dry or obliterated.

SMALL ABANDONED CANALS NOT INCLUDED ABOVE

(There are numerous small canals, often privately built, which do not fit with the criteria employed for this Overview. Andy Wood's *Abandoned & Vanished Canals of England* published in 2014 is a valuable source for information on these waterways and any significant heritage features he mentions are noted at the end of the Gazetteer.)

Adelphi Canal, North Derbyshire
Beaumont Cut, Essex (Braunton New Cut, North Devon
Brown's Canal, Somerset
Cann Quarry Canal, Devon
Cassington Cut, Eynsham, River Thames
Chillington Hall Canal, south Staffordshire
Cinderford Canal, Forest of Dean
Cod Beck Navigation, North Yorkshire
Compstall Navigation, nr. Marple
Cowbridge Drain, Lincolnshire
Eardington Forge Canal
Emmet's Canal, nr Bradford
Exeter & Crediton Canal, Fitzwilliam;s Canal, South Yorkshire
Fleet (New) Canal, London
Galton's Canal, Somerset Levels
Greasborough (Park Gate) Canal nr. Rotherham
Grosvenor Canal, London
Hollingwood Common Canal, nr. Staveley
Hulme Locks Branch Canal, Manchester
Kensington Canal, London
Mardyke Canal, Essex
McMurray's Canal (Wandsworth Cut), London
Mundon Canal, Essex
Parnall's Canal, Cornwall
Pensnett (Lord Wards) Canal, West Midlands
Pidcock's Canal, Lydney
Pudding Mill River,East London
Rainhhill Rock Quarry Branch, Yorkshire
Romford Canal, Essex
Royal Arsenal (Ordnance) Canal, Woolwich
Runcorn & Latchford Canal
Whitminster (Cambridge's) Navigation
Woodeaves Canal, Derbyshire

APPENDIX B

Waterways designated sites with National Heritage List for England (NHLE) Numbers

If the number is prefaced by the link http://list.historicengland.org.uk/resultsingle.aspx?uid= the NHLE entry can be viewed.

Waterway NHLE entries:	SM	Gd 1	Gd II*	Gd II	Total
R. Adur & Baybridge C	Nil				
Aire & Calder Navigation inc Selby Canal Wakefield Branch River Aire New Junction Canal Knottingley - Goole C.	SM 1	Gd I 1	Gd II* 3	Gd II 18	23

1083212	VICTORIA LOCK AND OUSE LOCK	II
1083214	BOAT HOIST ON SOUTH SIDE OF SOUTH DOCK	II*
1132586	AIRE AND CALDER NAVIGATION SELBY CANAL SELBY LOCK	II
1160252	DRY DOCK TO SOUTH OF OUSE LOCK	II
1160288	COAL WAGON HOIST, ADJOINING RAILWAY APPROACH AND CONTROL BOXES	II
1167663	ABBOTS STAITH BUILDINGS	II*
1174087	PAPER HOUSE BRIDGE	II
1242355	LOCK JOINING AIRE AND CALDER NAVIGATION OLD CUT WITH RIVER CALDER	II
1246188	BURTON BRIDGE AT SE 585 289 SELBY CANAL	II
1252273	SELBY CANAL PAPER HOUSE BRIDGE	II
1253637	AIRE AND CALDER NAVIGATION BIRKWOOD LOCK AT SE 359 240	II
1253745	AIRE AND CALDER NAVIGATION RAILWAY VIADUCT AT SE 392 248	II
1261639	AIRE AND CALDER NAVIGATION WOOD NOOK LOCK AT SE 392 251	II
1261690	STANLEY FERRY AQUEDUCT	I
1261691	AIRE AND CALDER NAVIGATION KINGS LOCK AT SE 373 244	II
1300117	AIRE AND CALDER NAVIGATION - FLOODLOCK GATES AND OVERBRIDGE North of BROADREACH LOCK	II
1310668	HYDRAULIC ACCUMULATOR TOWER EAST OF SOUTH DOCK BASIN, BRIDGE STREET	II
1310687	LOWTHER HOTEL	II*
1346744	ROYAL HOTEL, 3-9, AIRE STREET	II
1375056	AIRE AND CALDER NAVIGATION CUT AND LOCKS	II
1375061	BASIN OF NEW DOCK CLARENCE DOCK	II
1375063	LEEDS DAM ON RIVER AIRE	II

1005773	Stanley Ferry aqueduct	SM

Aike Beck — Nil

Ancholme Navigation — SM 1 — Gd II* 1 — Gd II 4 — 6

1005244	Ferriby Sluice	SM
1083681	NEW RIVER ANCHOLME BRIDGE	II
1083703	CADNEY BRIDGE	II
1214853	HORKSTOW SUSPENSION BRIDGE	II*
1309958	BROUGHTON BRIDGE	II
1346522	HIBALDSTOW BRIDGE	II

Andover Canal — SM 1

1001794	Andover-Redbridge canal, Chalk Hill Lock, Horsebridge	SM

River Arun — SM 1 — GD I 1

1226929	STOPHAM BRIDGE, PETWORTH ROAD, Pulborough, Horsham, West Sussex	I
1392320	BRIDGE ON FORMER ROTHER NAVIGATION (AT SU98291882)	II
1392319	BRIDGE ON FORMER ROTHER NAVIGATION (AT SU88942135)	II
1005810	Lime kilns, canal, engine sheds, etcetera	SM

Ashby Canal — Gd II 11

1034986	BRIDGE NUMBER 1, ASHBY DE LA ZOUCH CANAL	II
1074313	NUMBER 60 BRIDGE	II
1074339	No name for this Entry (Canal warehouse)	II
1074335	THE FURNACE	II
1178057	NUMBER 61 TURNOVER BRIDGE	II
1186061	BRIDGE NUMBER 2, ASHBY DE LA ZOUCH	II
1281697	TICKNALL ARCH	II
1295233	SNARESTONE TUNNEL ENTRANCES	II
1299566	ASHBY DE LA ZOUCH CANAL BRIDGE NO 8	II
1299609	ASHBY DE LA ZOUCH CANAL BRIDGE NO 11	II
1299612	ASHBY DE LA ZOUCH CANAL BRIDGE NO 9	II

Ashton Canal (& Branches) — Gd II* 1 — Gd II 22 — 23

1067947	MANCHESTER AND ASHTON UNDER LYNE CANAL FORMER PACKET BOATHOUSE ADJACENT TO BRIDGE NUMBER 16	II
1197777	BRIDGE NUMBER 4 OVER ASHTON CANAL	II
1197793	ASHTON CANAL LOCK NUMBER 15 100 METRES WEST OF EDGE LANE	II
1197794	ASHTON CANAL TOWPATH BRIDGE OVER JUNCTION WITH STOCKPORT BRANCH CANAL	II
1197805	BRIDGE NUMBER 5 OVER ASHTON CANAL	II
1197829	ASHTON CANAL LOCK NUMBER 1 IMMEDIATELY EAST OF GREAT ANCOATS STREET	II

1197830	ASHTON CANAL TOWPATH BRIDGE OVER JUNCTION WITH ISLINGTON BRANCH CANAL WEST OF LOCK NUMBER 2	II
1197831	ASHTON CANAL LOCK NUMBER 7 WITH ROVING BRIDGE IMMEDIATELY EAST OF MILL STREET BRIDGE	II
1197832	ASHTON CANAL LOCK NUMBER 9 IMMEDIATELY EAST OF CLAYTON LANE BRIDGE	II
1207654	ASHTON CANAL LOCK NUMBER 2 OFF SOUTH END OF VESTA STREET	
1207666	ASHTON CANAL LOCK NUMBER 6 IMMEDIATELY EAST OF FORGE LANE	II
1207712	ASHTON CANAL LOCK NUMBER 10 CLAYTON BRIDGE AND STOCKPORT JUNCTION	II
1207737	ASHTON CANAL LOCK NUMBER 14 BETWEEN CRABTREE LANE AND EDGE LANE	II
1270666	STORE STREET AQUEDUCT	II*
1279582	ASHTON CANAL LOCK NUMBER 13 AT CRABTREE LANE SWING BRIDGE	II
1279613	ASHTON CANAL BRIDGE NUMBER 9 OVER ASHTON CANAL (MILL STREET BRIDGE) AT WEST END OF LOCK NUMBER 7	II
1279617	ASHTON CANAL LOCK NUMBER 8 TO SOUTH EAST OF ASHTON NEW ROAD	Ii
1279629	ASHTON CANAL LOCK NUMBER 12 STOCKPORT JUNCTION AND CRABTREE LANE	II
1279636	ASHTON CANAL LOCK KEEPERS COTTAGE BESIDE LOCK NUMBER 2 AT ISLINGTON BRANCH JUNCTION BASIN	II
1283048	ASHTON CANAL NUMBER 3 ON SOUTH SIDE OF ANCOATS HOSPITAL	II
1283049	ASHTON CANAL LOCK KEEPERS COTTAGE ON SOUTH SIDE OF LOCK NUMBER 7	II
1283050	ASHTON CANAL LOCK NUMBER 11 AT EAST END OF STOCKPORT JUNCTION BASIN	Ii
1356454	ASHTON UNDER LYNE CANAL, HOLLINWOOD BRANCH WATERHOUSES AQUEDUCT	II
1356475	ASHTON UNDER LYNE CANAL LOCK NUMBER 18 (FAIRFIELD TOP LOCK)	II

River Avon (Warwicks) Gd I 1

1355318	Bidford Bridge	I

River Avon (see K &A)

Aylsham/Bure Nil

Barnsley Canal Gd II 4

1135574	BARNSLEY CANAL BLUE BRIDGE	II
1135575	BARNSLEY CANAL WALTON HALL CANAL BRIDGE	II
1192033	FORMER AQUADUCT OVER SILKSTONE BECK AT NORTH EAST END OF FORMER BARNBY BASIN APPROXIMATELY 150 METRES NORTH OF BARNBY BRIDGE	II
1200056	BARNSLEY CANAL HAW PARK BRIDGE	II

Basingstoke SM 1 Gd II 18 19

1092307	MALTHOUSE BRIDGE	II
1092350	POULTER'S BRIDGE	II
1092352	BLACKSMITH'S BRIDGE	II
1092353	SPRAT'S HATCH BRIDGE	II

1092635	ASH LOCK COTTAGE	II
1092940	BRICK KILN BRIDGE	II
1092942	SLADES BRIDGE	II
1116898	OLD WHARF HOUSE	II
1244409	WHARF HOUSE, LONDON ROAD (Odiham)	II
1244706	STACEY'S BRIDGE	II
1244719	BARLEY MOW BRIDGE	II
1261820	SANDY HILL BRIDGE	II
1261855	BASELEY'S BRIDGE	II
1272363	CANAL BRIDGE	II
1302128	LITTLE TUNNEL BRIDGE (INCLUDING CANAL TUNNEL)	II
1339550	EASTROP BRIDGE	II
1339556	CANAL BRIDGE	II
1339863	GREYWELL TUNNEL PORTAL	II
1005926	Goldsworth or Langman's Bridge, Basingstoke Canal	AM

Beverley Beck Gd II 1

1246137	BRIDGE AND AQUEDUCT CARRYING BEVERLEY BECK OVER THE BRANSTON DRAIN	II

Birmingham Canal Navigations:

SM 4 Gd I 1 Gd II* 1 Gd II 142 148

(excl minor branches):

Main Line including

- Soho Branch Loop
- Old Main Loop
- Engine Arm Branch
- Spon Lane Locks Branch
- Titford Canal
- Oldbury Loop
- Netherton Tunnel Branch
- Dudley Canal No.1
- Dudley Canal No.2
- Tipton Green
- Wednesbury Old Canal
- Bentley Canal
- Digbeth Branch
- Sneyd& Wyrley Bank C.
- Daw End Branch
- Anglesey Branch
- Cannock Extension C.

1005903	Smeaton's Summit Bridge	SM
1076034	CANAL FOOTBRIDGE TO NORTH OF DOUBLE LOCK COTTAGE	II
1076064	ROVING BRIDGE JUST WEST OF ROTTON PARK WEST AND SOHO LOOP EAST ENTRANCE	

	OVER BIRMINGHAM WOLVERHAMPTON CANAL	II
1076278	TWO CRANES AT EAST AND WEST ENDS OF BASIN AT HEAD OF FARMERS BRIDGE LOCKS	II
1076303	HOLLIDAY STREET CANAL AQUEDUCT	II
1076336	ROVING BRIDGE OVER WEST ENTRANCE TO SOHO LOOP	II
1077129	BOTTOM LOCK OF THREE, SMETHWICK LOCKS IMMEDIATELY WEST OF BRIDGE STREET BIRMINGHAM CANAL WOVERHAMPTON LEVEL	II
1077148	THE BOAT GAUGING HOUSE, TIPTON CANAL BASIN (OFF FACTORY ROAD) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077149	TOP LOCK, FACTORY LOCKS (APPROXIMATELY 15 METRES WEST OF FACTORY ROAD BRIDGE) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077150	MIDDLE LOCK, FACTORY LOCKS (APPROXIMATELY 40 METRES EAST OF FACTORY ROAD BRIDGE) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077151	TOWPATH BRIDGE OVER ENTRANCE TO CANAL BASIN (APPROXIMATELY 150 METRES WEST OF WATERY LANE) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077152	TOWPATH BRIDGE OVER NEW MAIN LINE AT JUNCTION WITH NETHERTON TUNNEL BRANCH BIRMINGHAM CANAL BIRMINGHAM LEVEL DUDLEY PORT	II
1077153	HARTLEY BRIDGE, CHANCE'S GLASSWORKS (APPROXIMATELY 230 METRES WEST OF SPON LANE SOUTH) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077154	SMETHWICK NEW PUMPING HOUSE APPROXIMATELY 50 METRES NORTH WEST OF BRASSHOUSE LANE BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077155	TOWPATH BRIDGE AT SP 036 884 (APPROXIMATELY 640 METRES SOUTH EAST OF RADBONE LANE) BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1077156	BOTTOM LOCK, BRADES LOCKS (APPROXIMATELY 130 METRES NORTH OF BRADES HALL BRIDGE, DUDLEY ROAD EAST) BIRMINGHAM CANAL GOWER BRANCH	II
1077157	BOTTOM LOCK, OLDBURY LOCKS (APPROXIMATELY 60 METRES NORTH OF TAT BANK ROAD) BIRMINGHAM CANAL TITFORD BRANCH, OLDBURY	II
1077158	THIRD LOCK FROM BOTTOM, OLDBURY LOCKS (APPROXIMATELY 90 METRES SOUTH OF TAT BANK ROAD) BIRMINGHAM CANAL TITFORD BRANCH	II
1077159	TOP LOCK, OLDBURY LOCKS (APPROXIMATELY 30 METRES SOUTH OF ENGINE STREET) BIRMINGHAM CANAL TITFORD BRANCH	II
1077160	FOOTBRIDGE OVER OLD MAIN LINE AT BROMFORD JUNCTION, 40 METRES WEST OF SPON LANE LOCKS BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1077161	STEWARD AQUEDUCT (APPROXIMATELY 400 METRES WEST OF SPON LANE SOUTH) BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1077162	TOP LOCK OF THREE, SMETHWICK LOCKS, WITH ATTACHED FOOTBRIDGE WEST, SOUTH WEST OF BRIDGE STREET BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1116914	DUDLEY NUMBER 2 CANAL ROVING BRIDGE OVER DUDLEY NUMBER 2 CANAL, JUNCTION WITH BUMBLE HOLE BRANCH	II
1116918	TOWPATH BRIDGE OVER BOSHBOIL ARM	II
1116941	TOWPATH BRIDGE, APPROXIMATELY 300 METRES NORTH WEST OF HIGHBRIDGE ROAD	II
1201775	BIRMINGHAM CANAL LITTLE'S LANE BRIDGE BIRMINGHAM CANAL NO1 LOCK	II
1201776	BIRMINGHAM CANAL NO3 LOCK	II
1201777	BIRMINGHAM CANAL NO6 LOCK	II

1201778	BIRMINGHAM CANAL NO 9 LOCK	II
1201779	BIRMINGHAM CANAL NO 13 LOCK	II
1201780	BIRMINGHAM CANAL NO 17 LOCK	II
1201781	BIRMINGHAM CANAL DUNSTALL PARK BRIDGE BIRMINGHAM CANAL NO 19 LOCK	II
1201895	CANAL FOOTBIDGE AT ENTRANCE TO BROAD STREET BASIN	II
1204851	BIRMINGHAM CANAL NO4 LOCK	II
1204995	BIRMINGHAM CANAL NO7 LOCK	II
1205012	BIRMINGHAM CANAL FOX'S LANE BRIDGE BIRMINGHAM CANAL NO 10 LOCK	II
1205028	BIRMINGHAM CANAL LOCK NO 12	II
1205036	BIRMINGHAM CANAL NO 14 LOCK	II
1205047	BIRMINGHAM CANAL NO 16 LOCK	II
1205062	BIRMINGHAM CANAL NO 18 LOCK	II
1205075	ALDERSLEY JUNCTION BRIDGE BIRMINGHAM CANAL NO 21 (BOTTOM) LOCK	II
1208842	BROAD STREET WAREHOUSE	II
1214811	CANAL BRIDGE, CHANCE'S GLASSWORKS WEST OF SPON LANE SOUTH BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1214833	GALTON BRIDGE INCLUDING ATTACHED RAILWAY BRIDGE SPAN, ROEBUCK LANE BIRMINGHAM CANAL BIRMINGHAM LEVEL	I
1214940	TOWPATH BRIDGE AT SOHO FOUNDRY EAST OF RABONE LANE BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1214999	UPPER TWO LOCKS, BRADES LOCKS, SOUTH OF BRADES HALL BRIDGE, DUDLEY ROAD EAST BIRMINGHAM CANAL GOWER BRANCH	II
1215006	TOWPATH BRIDGE OVER GOWER BRANCH AT JUNCTION WITH NEW MAIN LINE NORTH WEST OF UNION ROAD BIRMINGHAM CANAL GOWER BRANCH	II
1215046	NORTH PORTAL, NETHERTON TUNNEL NORTH EAST OF DUDLEY ROAD WEST BIRMINGHAM CANAL NETHERTON TUNNEL BRANCH, TIVIDALE	II
1215059	TOWPATH BRIDGE OVER NETHERTON TUNNEL BRANCH AT JUNCTION WITH NEW MAIN LINE EAST OF DUDLEY PORT BIRMINGHAM CANAL BIRMINGHAM LEVEL, TIVIDALE	II
1215146	SECOND LOCK FROM BOTTOM, OLDBURY LOCKS, ADJOINING STONEY LANE BRIDGE, (TAT BANK ROAD) BIRMINGHAM CANAL TITFORD BRANCH	II
1215161	FOURTH LOCK FROM BOTTOM, OLDBURY LOCKS, NORTH OF ENGINE STEEL BIRMINGHAM CANAL TITFORD BRANCH	II
1215249	TOP LOCK, SPON LANE LOCKS, WITH ATTACHED FOOTBRIDGE BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1215275	RAILWAY BRIDGE 15 METRES NORTH OF SUMMIT BRIDGE/ROEBUCK LANE BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1215330	MIDDLE LOCK OF THREE, SMETHWICK LOCKS WEST OF BRIDGE STREET) BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1228704	JONES BRIDGE, AT SO987938	II
1228735	GRAND JUNCTION AQUEDUCT SOUTH EAST OF WALSALL ROAD AND WEST OF M5/M6 JUNCTION TAME VALLEY CANAL	II
1229552	COBBS ENGINE HOUSE AND CHIMNEY WARRENS HALL PARK	II

1234110	LODGE TO ROTTON PARK RESERVOIR	II
1234111	COVERED DOCK AT ROTTON PARK LOOP CANAL MAINTENANCE YARD	II
1234114	CRANE AT ROTTON PARK LOOP CANAL MAINTENANCE YARD	II
1252658	CHILLINGTON WHARF CANAL RAILWAY INTERCHANGE BASIN	II
1279272	LOCK KEEPER'S HOUSE	II
1280911	BIRMINGHAM CANAL NO 20 LOCK	II
1280918	BIRMINGHAM CANAL NO5 LOCK	II
1282521	BIRMINGHAM CANAL NO 2 LOCK	II
1282522	BIRMINGHAM CANAL JORDANS BRIDGE BIRMINGHAM CANAL NO 8 LOCK	II
1282523	BIRMINGHAM CANAL NO 11 LOCK	II
1282524	BIRMINGHAM CANAL NO 15 LOCK	II
1287413	CANAL FOOTBRIDGE TO WEST OF DOUBLE LOCK COTTAGE	II
1288230	BOTTOM LOCK, SPON LANE LOCKS BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1288246	ENGINE HOUSE ADJOINING TOP LOCK OF OLDBURY LOCKS, SOUTH OF ENGINE STREET BIRMINGHAM CANAL TITFORD BRANCH	II
1289686	ROVING BRIDGE OVER BIRMINGHAM/WOLVERHAMPTON CANAL JUST WEST OF WEST SOHO LOOP ENTRANCE	II
1290005	ROVING BRIDGE OVER WEST ENTRANCE TO ROTTON PARK LOOP	II
1291547	ROVING BRIDGE OVER EAST ENTRANCE TO ROTTON PARK LOOP FROM BIRMINGHAM AND WOLVERHAMPTON	II
1319690	BIRMINGHAM MAIN LINE COSELEY TUNNEL, SOUTH PORTAL	II
1319700	BIRMINGHAM MAIN LINE COSELEY TUNNEL, NORTH PORTAL	II
1342644	BOTTOM LOCK AND ATTACHED CANTILEVER FOOTBRIDGE, FACTORY LOCKS NORTH OF FURNACE PARADE BIRMINGHAM CANAL BIRMINGHAM LEVEL	II
1342648	SOUTH PORTAL, NETHERTON TUNNEL, WARRENS HILL PARK BIRMINGHAM CANAL NETHERTON TUNNEL BRANCH WINDMILL END, ROWLEY KINGS	II
1342649	FIFTH LOCK FROM BOTTOM, OLDBURY LOCKS, ADJOINING ENGINE BRIDGE, ENGINE STREET BIRMINGHAM CANAL TITFORD BRANCH	II
1342650	STATION ROAD BRIDGE BIRMINGHAM CANAL TITFORD BRANCH	II
1342651	MIDDLE LOCK, SPON LANE LOCKS BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II
1342672	FOOTBRIDGE AT JUNCTION WITH BIRMINGHAM CANAL, SMETHWICK JUNCTION EAST OF BRIDGE STREET BIRMINGHAM LEVEL WOLVERHAMPTON LEVEL	II
1343143	ROVING BRIDGE OVER BIRMINGHAM WOLVERHAMPTON LINE IMMEDIATELY WEST OF FAZELEY JUNCTION	II
1391874	ENGINE ARM AQUEDUCT, BIRMINGHAM CANAL WOLVERHAMPTON LEVEL	II*
1391875	SUMMIT BRIDGE	II*
1005904	Engine Arm Aqueduct	SM
1021388	Remains of the Boulton and Watt Soho foundry and mint, Birmingham Canal, Smethwick	SM

Birmingham & Fazeley Canal

1034402	CANAL BRIDGE NUMBER 21	II
1034724	LOCK APPROXIMATELY SOUTH OF CHEATLE'S FARM BRIDGE BIRMINGHAM AND FAZELEY CANAL	II
1038784	DUNSTALL FARM BRIDGE (THAT PART IN FAZELEY CIVIL PARISH	II
1038818	DRAYTON FOOTBRIDGE	II
1038819	DRAYTON SWIVEL BRIDGE	II
1038826	BRIDGE NUMBER 77 TOW PATH BRIDGE	II
1116533	CHEATLES FARM BRIDGE BIRMINGHAM AND FAZELEY CANAL	II
1219515	ROVING BRIDGE AT NORTH EAST END OF ASTON NUMBER 1 LOCK, ON THE BIRMINGHAM FAZELEY CANAL	II
1259858	CURDWORTH TUNNEL ON BIRMINGHAM AND FAZELEY CANAL, APPROXIMATELY 120 METRES NORTH EAST OF CURDWORTH BRIDGE	II
1276277	NUMBER 7 LOCK, ASTON CANAL FLIGHT WITH FOOTBRIDGE, BIRMINGHAM AND FAZELEY CANAL	II
1291469	BIRMINGHAM/FAZELEY CANAL AQUEDUCT JUST SOUTH OF SALFORD JUNCTION	II
1294893	DRAYTON BRICK BRIDGE	II
1299297	LOCK IMMEDIATELY NORTH OF KINGSBURY SWIVEL BRIDGE, BIRMINGHAM AND FAZELEY CANAL	II
1343082	ROVING BRIDGE OVER ENTRANCE TO BIRMINGHAM FAZELEY CANAL AT FAZELEY JUNCTION	II
1343098	ROVING BRIDGE AT ASTON JUNCTION, ON THE BIRMINGHAM FAZELEY CANAL	II
1343104	ROVING BRIDGE BY TOLL HOUSE OVER BIRMINGHAM AND FAZELEY CANAL	II
1374243	BIRMINGHAM AND FAZELEY CANAL TAMHORN FARM BRIDGE	II
1374285	DUNSTALL BRIDGE (THAT PART IN FAZELEY CIVIL PARISH)	II
1374306	SUTTON ROAD BRIDGE (THAT PART IN FAZELEY CIVIL PARISH	II

Dudley Canals No1 and No2

1005884	Triangular crane, Bumble Hole Boatyard	SM
1005899	Cobb's Engine House, Warley	SM
1076011	CANAL FOOTBRIDGE AT DELPH LOCKS	II
1076012	CANAL STABLES AT DELPH LOCKS	II
1116914	DUDLEY NUMBER 2 CANAL ROVING BRIDGE OVER DUDLEY NUMBER 2 CANAL, JUNCTION WITH BUMBLE HOLE BRANCH	II
1116918	TOWPATH BRIDGE OVER BOSHBOIL ARM	II
1228374	DELPH LOCKS	II
1319706	DUDLEY NUMBER 1 CANAL TOWPATH BRIDGE, EAST OF WOODSIDE BRIDGE	II

Wyrley & Essington Canal

1077179	WYRLEY AND ESSINGTON CANAL FOOTBRIDGE AT PELSALL JUNCTION	II
1077180	WYRLEY AND ESSINGTON CANAL ANGLESEY BRANCH RAILWAY AQUEDUCT	II
1087076	WYRLEY AND ESSINGTON CANAL FOOTBRIDGE AT OGLEY JUNCTION	II

1087110	PELSALL WORKS BRIDGE WRYLEY ESSINGTON CANAL PELSALL WORKS BRIDGE	II
1246077	AQUEDUCT OVER RAILWAY LINE, TO THE NORTH OF REAR OF NUMBER 50 RAYMOND CLOSE WYRLEY AND ESSINGTON CANAL	II
1342658	WYRLEY AND ESSINGTON CANAL RAYBOULD'S BRIDGE ROAD RAYBOULD'S BRIDGE	II
1342659	WYRLEY AND ESSINGTON CANAL DAW END BRANCH RIDDION BRIDGE	II

Walsall Canal and Walsall Junction Canal

1077096	SIXTH LOCK FROM BOTTOM, RYDER'S GREEN LOCKS NORTH WEST OF RYDER'S GREEN FARMHOUSE WALSALL CANAL	II
1077097	SECOND LOCK FROM BOTTOM, RYDER'S GREEN LOCKS IMMEDIATELY ADJOINING GREAT BRIDGE STREET WALSALL CANAL	II
1077174	WALSALL JUNCTION CANAL SOUTHERN LOCK WALSALL LOCKS	II
1077175	WALSALL JUNCTION CANAL OLD BIRCHILLS FIFTH LOCK FROM SOUTH WALSALL LOCKS	II
1077176	WALSALL JUNCTION CANAL OLD BIRCHILLS TOLL HOUSE	II
1186743	WALSALL CANAL JAMES BRIDGE AQUEDUCT BENTLEY MILL LANE	II
1186752	WALSALL JUNCTION CANAL FOURTH LOCK FROM SOUTH WALSALL LOCKS	II
1186765	WALSALL JUNCTION CANAL OLD BIRCHILLS EIGHTH LOCK FROM SOUTH (TOP LOCK) WALSALL LOCKS	II
1229394	SEVENTH LOCK FROM BOTTOM, RYDER'S GREEN LOCKS NORTHWEST OF RYDER'S GREEN ROAD WALSALL CANAL	II
1229405	FIFTH LOCK FROM BOTTOM, RYDER'S GREEN LOCKS NORTHWEST OF RYDER'S GREEN ROAD) WALSALL CANAL	II
1229489	FOOTBRIDGE TO SOUTH OF JUNCTION WITH TAME VALLEY CANAL	II
1229417	THIRD LOCK FROM BOTTOM, RYDER'S GREEN LOCKS SOUTH EAST OF BRIDGE STREET WALSALL CANAL	II
1271546	BIRCHILLS CANAL MUSEUM, FORMER BOATMANS REST, WEST SIDE OF WALSALL TOP LOCK	II
1279082	BOTTOM LOCK, RYDER'S GREEN LOCKS NORTH WEST OF BRICKHOUSE LANE WALSALL CANAL	II
1299032	WALSALL JUNCTION CANAL OLD BIRCHILLS SIXTH LOCK FROM SOUTH WALSALL LOCKS	II
1299066	WALSALL JUNCTION CANAL SECOND LOCK FROM SOUTH WALSALL LOCKS	II
1342655	WALSALL JUNCTION CANAL THIRD LOCK FROM SOUTH WALSALL LOCKS	II
1342656	WALSALL JUNCTION CANAL OLD BIRCHILLS SEVENTH LOCK FROM SOUTH WALSALL LOCKS	II
1342692	TOP LOCK, RYDER'S GREEN LOCKS ADJOINING RYDER'S GREEN ROAD WALSALL CANAL	II
1342693	FOURTH LOCK FROM BOTTOM, RYDER'S GREEN LOCKS SOUTH EAST OF BRIDGE STREET, WALSALL CANAL	II
1342694	FOOTBRIDGE TO NORTH OF JUNCTION WITH TAME VALLEY CANAL	II

Titford Branch Canal

1288246	ENGINE HOUSE ADJOINING TOP LOCK OF OLDBURY LOCKS, SOUTH OF	

	ENGINE STREET BIRMINGHAM CANAL TITFORD BRANCH OLDBURY	II
1077159	TOP LOCK, OLDBURY LOCKS (APPROXIMATELY 30 METRES SOUTH OF ENGINE STREET) BIRMINGHAM CANAL TITFORD BRANCH	II

Tame Valley Canal

1075611	ROVING BRIDGE ON THE TAME VALLEY CANAL NORTH WEST OF SALFORD JUNCTION	II
1075612	ROAD BRIDGE AT END OF DEYKIN AVENUE, OVER TAME VALLEY CANAL	II
1075613	LOCK KEEPER'S COTTAGE NUMBER 79 AT WITTON, TAME VALLEY CANAL	II
1077091	HATELEY HEATH AQUEDUCT, HYDES ROAD TAME VALLEY CANAL	II
1077092	BRICKFIELDS BRIDGE FOOTBRIDGE EAST OF JUNCTION WITH RUSHALL CANAL	II
1228704	JONES BRIDGE, AT SO987938	II
1228735	GRAND JUNCTION AQUEDUCT SOUTH EAST OF WALSALL ROAD TAME VALLEY CANAL	II
1228779	BRICKFIELDS TURNOVER BRIDGE, REAR OF CHATSWORTH AVENUE TAME VALLEY CANAL	II
1229188	SPOUTHOUSE AQUEDUCT, SPOUTHOUSE LANE TAME VALLEY CANAL	II
1234155	COTTAGE IMMEDIATELY NORTH OF LOCK NUMBER 1 (TOP LOCK)	II
1234156	LOCK NUMBER 2	II
1234157	PERRY BARR LOCKS BRIDGE, TAME VALLEY CANAL	II
1253736	GERSE FARM BRIDGE AT SP 041 934 TAME VALLEY CANAL	II
1261637	WALSALL ROAD AQUEDUCT AT SP 016 947 TAME VALLEY CANAL	II
1276269	LOCK NUMBER 1 (TOP LOCK)	II
1290421	LOCK AT WITTON, NORTH WEST OF BRIDGE ON THE TAME VALLEY CANAL	II
1342690	CHIMNEY BRIDGE, GREEN LANE TAME VALLEY CANAL	II

Rushall Canal

1077126	HILL FARM BRIDGE, BRACKENHALL DRIVE RUSHALL CANAL	II

Birm. & Liverpool Junction (see Shropshire Union)

Birm & Warwick Jnc Canal (see Grand Union Canal)

Blyth Navigation **Nil**

Bradford Canal **Nil**

Bridgewater Canal **SM 1** **GD II* 1** **Gd II 54** **56**

Inc: Hulme Locks B
Stretford & Leigh B
Preston Brook B
Runcorn & Weston B
Mersey & Irwell Nav

1067486	BRIDGEWATER CANAL FOOTBRIDGE BARTON ROAD THE GREEN, WORSLEY	II
1067872	BRIDGEWATER CANAL AQUEDUCT OVER RIVER MERSEY	II
1067917	DUNHAM SCHOOL BRIDGE, SCHOOL LANE	II

1067941	BRIDGEWATER CANAL AQUEDUCT AND ADJOINING BRIDGE 1/4 MILE SOUTH OF WOODHOUSE LANE AQUEDUCT	
1067956	LUXI LEISURE WAREHOUSE ADJACENT TO COAL WHARF	II
1105680	WATERLOO BRIDGE	II
1120879	SEAMON'S MOSS BRIDGE	II
1130427	MOORE BRIDGE	II
1130440	FORMER TIDE DOCK OF BRIDGEWATER CANAL AND LOCK TO NORTH	II
1135858	LUMB BROOK BRIDGE (AN AQUEDUCT)	II
1135981	ACTON GRANGE BRIDGE (OVER BRIDGEWATER CANAL)	II
1136109	WALTON LEA BRIDGE	II
1136734	THE BRIDGEWATER CANAL BRIDGEWATER STREET AQUEDUCT	II
1139316	WALTON BRIDGE	II
1139318	BRIDGEWATER CANAL LUMB BROOK BRIDGE (AN AQUEDUCT, THAT PART IN GRAPPENHALL CIVIL PARISH)	II
1139319	BRIDGEWATER CANAL HALFACRE LANE AQUEDUCT	II
1139329	THE BRIDGEWATER CANAL BARSBANK LANE AQUEDUCT	II
1139330	THE BRIDGEWATER CANAL LLOYD BRIDGE	II
1139354	AQUEDUCT CARRYING THE BRIDGEWATER CANAL OVER CHESTER ROAD (OLD LINE)	II
1162797	THE PACKET HOUSE	II
1163001	BRIDGEWATER CANAL HALL HOUSE BRIDGE	II
1188296	WORSLEY OLD HALL	II
1197778	MERCHANTS WAREHOUSE	II
1210156		
1208196	BRIDGEWATER CANAL HULME JUNCTION LOCKS	II
1208653	MIDDLE WAREHOUSE, AT FORMER CASTLE FIELD GOODS YARD	II
1210156	FLOODGATE ON EAST SIDE OF KNOTT MILL BRIDGE, DEANSGATE	II
1215011	SLUICE GATE AT EAST ENTRANCE TO MINE CANAL TUNNEL	II
1215082	SLUICE GATE AT WEST ENTRANCE TO MINE CANAL TUNNEL	II
1215143	DRY DOCKS BEHIND WORSLEY GREEN	II
1226456	THE BRIDGEWATER CANAL GRANTHAM'S BRIDGE	II
1226458	THE BRIDGEWATER CANAL BURFORD LANE AQUEDUCT	II
1227405	THE BRIDGEWATER CANAL, COVERED CANAL DOCK (NORTH OF HENRY STREET)	II
1246959	BRIDGEWATER CANAL BASIN AT POTATO WHARF	II
1247068	THE GIANTS BASIN	II
1248142	BRIDGEWATER CANAL GEORGE GLEAVE'S BRIDGE	II
1254727	ALBERT WAREHOUSE QUAY ON WEST SIDE FRONTING RIVER IRWELL VICTORIA WAREHOUSE	II
1255540	BRINDLEYS WEIR	II
1265839	THE BRIDGEWATER CANAL, CASE TO WATERPOINT ON SOUTH BANK OF CANAL, 15 METRES WEST OF AGDEN BRIDGE, Lymm,	II

1283003	PAIR OF CULVERT ARCHES OVER RIVER MEDLOCK ASSOCIATED OVERFLOW CHANNEL	II
1283068	BRIDGEWATER CANAL OFFICES	II
1287408	BRIDGE OVER BRANCHES OF BRIDGEWATER CANAL AT THE DELPH	II
1288256	WESTERN TUNNEL ENTRANCE TO UNDERGROUND CANAL	II
1288294	EASTERN TUNNEL ENTRANCE TO UNDERGROUND CANAL	II
1288295	BOAT HOUSE TO WEST OF THE GREEN	II
1309431	JETTY STEPS OUTSIDE THE PACKET HOUSE, BARTON ROAD	II
1312953	THOMASONS BRIDGE OVER BRIDGEWATER CANAL	II
1329765	REDLANE BRIDGE	II
1329774	HOUGHS BRIDGE	II
1329797	BRIDGEWATER CANAL CHURCH LANE BRIDGE	II
1330334	BRIDGEWATER HOUSE	II
1330363	THE OLD NUMBER ONE WAREHOUSE	II
1356517	BRIDGEWATER CANAL AQUEDUCT BRIDGEWATER CANAL AQUEDUCT OVER HAWTHORN ROAD	II
1356522	BARTON BRIDGE, BARTON AQUEDUCT AND CONTROL TOWER (THAT PART IN DAVYHULME)	II*
1001956	Canal tunnel entrances and wharf	SM

Bridgwater & Taunton C. SM 1 Gd II 11 12

(inc River Tone)

1060153	COXHILL BRIDGE AT ST 304306	II
1060154	HIGHER MAUNSELL BRIDGE AT ST 308294 HIGHER MAUNSELL LOCK NO 4 AT ST 308294	II
1060459	BRIDGE ON A38 OVER CANAL AT NGR ST 2545 2603	II
1060523	BRIDGE OVER CANAL AT NGR ST 2727 2551	II
1177277	HYDE BRIDGE	II
1197401	BRIDGWATER DOCK, TIDAL BASIN, LOCKS, QUAYSIDES, BRIDGES AND FITTINGS	II
1197403	WARES WAREHOUSE (BRIDGWATER DOCK)	II
1197418	TAUNTON ROAD BRIDGE, BRIDGWATER AND TAUNTON CANAL, AT ST 3006 3648	II
1197422	CRANE ON QUAYSIDE OPPOSITE NOS 11 AND 12	II
1197423	ALBERT STREET CUTTING, BRIDGWATER AND TAUNTON CANAL	II
1308009	CHARLTON BRIDGE	II
1344671	LOWER MAUNSELL BRIDGE AT ST 308298 LOWER MAUNSELL LOCK NO 3 AT ST 308298	II
1020624	Telescopic rail bridge over the River Parrett, south east of Bridgwater Dock lock	SM

Bude Canal SM 2 Gd II* 1 Gd II 5 8

1141802	CANAL BRIDGE OVER THE BUDE CANAL	II
1164389	AQUEDUCT, ABOUT 100 METRES EAST OF BURMSDON FARMHOUSE	II
1230140	MILEPOST ABOUT 100 METRES NORTH OF RODDS BRIDGE	II
1230501	AQUEDUCT ABOUT 100 METRES EAST OF BURMSDON FARMHOUSE	II

1278566	HOBBACOTT DOWN INCLINE KEEPERS HOUSE	ii
1328520	SEA LOCK, LOCK GATES AND HAND WINCHES	II*
	INCLINE PLANE, BRIDGE AND WHEEL PIT TO EAST OF PLANE COTTAGE, WERRINGTON, NORTH CORNWALL, CORNWALL	II
1005454	Post medieval sea lock at Bude Canal	SM
1005459	Hobbacott canal incline	SM

R. Bure (see Aylsham)

Caistor Canal GdII 6

1396408	LOCK 5 AT TF 060986, CAISTOR CANAL	II
1396409	ANCHOLME TOW PATH BRIDGE AT TF 010990, CAISTOR CANAL	II
1396410	LOCK 1 AT TF 010990, CAISTOR CANAL	II
1396411	LOCK 2 AT TF 030990, CAISTOR CANAL	II
1396412	LOCK 3 AT TF 035990, CAISTOR CANAL	II
1396413	LOCK 4 AT TF 050988, CAISTOR CANAL	II

Calder & Hebble Nav SM 1 Gd II* 3 Gd II 64 68

1005793	Turn Bridge, Quay Street	SM
1133863	CALDER AND HEBBLE NAVIGATION COOPER BRIDGE LOCK AND GANTRY TO FOOT BRIDGE	II
1133864	CALDER AND HEBBLE NAVIGATION CROMWELL LOCK AND BRIDGE	II
1134005	CALDER AND HEBBLE NAVIGATION PARK NOOK LOCK	II
1134344	CALDER AND HEBBLE NAVIGATION KIRKLEES TOPLOCK KIRKLEES CUT	II
1134345	CALDER AND HEBBLE NAVIGATION BREARLEY BRIDGE KIRKLEES CUT	II
1134346	CALDER AND HEBBLE NAVIGATION COOPER BRIDGE LOCK KIRKLEES CUT COOPER BRIDGE LOCK	II
1134347	CALDER AND HEBBLE NAVIGATION JOHNSONS LOCK SIR JOHN RAMSDENS CANAL JOHNSONS LOCK	II
1134348	CALDER AND HEBBLE NAVIGATION HALL WOOD LOCK SIR JOHN RAMSDENS CANAL HALL WOOD LOCK	II
1134349	CALDER AND HEBBLE NAVIGATION RIDDINGS LOCK SIR JOHN RAMSDENS CANAL RIDDINGS LOCK	II
1134350	CALDER AND HEBBLE NAVIGATION ASPLEY BASIN SIR JOHN RAMSDENS CANAL ASPLEY BASIN	II
1134352	CALDER AND HEBBLE NAVIGATION RIVER COLNE AQUEDUCT HUDDERSFIELD NARROW CANAL RIVER COLNE AQUEDUCT	II
1134353	CALDER AND HEBBLE NAVIGATION MILNSBRIDGE BASIN HUDDERSFIELD NARROW CANAL MILNSBRIDGE BASIN	II
1134354	CALDER AND HEBBLE NAVIGATION SCARBOTTOM AQUEDUCT HUDDERSFIELD NARROW CANAL SCARBOTTOM AQUEDUCT	II
1134676	CALDER AND HEBBLE NAVIGATION FLOOD LOCK AT NEWGATE BRIDGE	II
1134720	CALDER AND HEBBLE NAVIGATION GREENWOOD LOCK	II

1134721	CALDER AND HEBBLE NAVIGATION DOUBLE LOCKS, AT JUNCTION WITH DEWSBURY CUT	II
1134722	LOCK 400 YARDS EAST OF LODGE FARM	II
1135507	HORBURY JUNCTION 100 YARDS LOCK MARKER STONE, APPROXIMATELY 100 METRES SOUTH WEST OF BROAD CUT LOCK ON CALDER AND HEBBLE NAVIGATION, BROAD CUT	II
1135515	LOCK ON HORBURY SIDE CUT APPROXIMATELY 150 METRES NORTH WEST OF HORBURY BRIDGE	II
1183729	CALDER AND HEBBLE NAVIGATION GANNY LOCK AND FOOTBRIDGE	II
1183736	CALDER AND HEBBLE NAVIGATION BRIGHOUSE UPPER LOCK	II
1183756	SOWERBY WORSTED MANUFACTURING COMPANY LIMITED	II
1184301	CALDER AND HEBBLE NAVIGATION ELLAND LOCK	II
1184303	CALDER AND HEBBLE NAVIGATION WOODSIDE MILLS LOCK AND BRIDGE APPROACH	II
1184452	AQUEDUCT COTTAGE BETWEEN RIVER CALDER AND THE AIRE AND CALDER NAVIGATION BASIN	II
1119660	STONE WAREHOUSE TO NORTH OF NAVIGATION WAREHOUSE	II
1200706	CALDER AND HEBBLE NAVIGATION FIGURE OF 3 LOCKS	II
1200709	KIRKTHORPE WEIR AND SLUICE GATES	II
1210180	CALDER AND HEBBLE NAVIGATION FIELDHOUSE LOCK SIR JOHN RAMSDENS CANAL FIELDHOUSE LOCK	II
1210215	CALDER AND HEBBLE NAVIGATION LOCK NUMBER 2 HUDDERSFIELD NARROW CANAL LOCK NUMBER 2	II
1210245	CALDER AND HEBBLE NAVIGATION ARMITAGE BRIDGE HUDDERSFIELD NARROW CANAL ARMITAGE BRIDGE	II
1223867	CANAL WAREHOUSE AT ASPLEY BASIN	II*
1242353	NAVIGATION WAREHOUSE, WAKEFIELD	II*
1242958	LOCKS, BASIN AND DOCKS AT FALL INGS LOCK ON CALDER AND HEBBLE NAVIGATION	II
1247237	SALTERHEBBLE TOP LOCK AT SE09522243	II
1247238	SALTERHEBBLE MIDDLE LOCK AT SE09492239	II
1247240	WAKEFIELD ROAD BRIDGE AT SE09542248	II
1247275	WHARF OFFICE AT SE1068 2132 CALDER AND HEBBLE NAVIGATION	II
1247276	MILEPOST APPROXIMATELY 90 METRES SOUTH WEST OF ELLAND LOCK AT SE 1101 2181	II
1247277	MILEPOST AT SE 0995 2178	II
1247996	CALDER AND HEBBLE NAVIGATION, CANAL WAREHOUSE AND INTEGRAL HOUSE AT ELLAND WHARF APPROXIMATELY 100 METRES OF ELLAND BRIDGE	II
1255226	CALDER AND HEBBLE NAVIGATION MILEPOST 20 METRES EAST OF CROWTHER BRIDGE, AT SOUTH EAST 1240 2233	II
1270983	ELLAND BRIDGE AT SE 106 213	II
1290563	CALDER AND HEBBLE NAVIGATION CUCKOO BRIDGE HUDDERSFIELD NARROW CANAL CUCKOO BRIDGE	II
1290603	CALDER AND HEBBLE NAVIGATION RED DOLES LOCK SIR JOHN RAMSDENS CANAL RED DOLES LOCK	II
1290665	CALDER AND HEBBLE NAVIGATIONT ANCHOR LOCK	II

1300635	CALDER AND HEBBLE NAVIGATION LOCK AT NEW CUT TOP AT JUNCTION WITH RIVER CALDER	
1300641	CALDER AND HEBBLE NAVIGATION MILESTONE AT BRIDGE OVER CUT 200 YARDS SOUTH EAST OF LODGE FARM	II
1314045	CALDER AND HEBBLE NAVIGATION BRIGHOUSE LOWER LOCK	II
1314046	CALDER AND HEBBLE NAVIGATION COOPER BRIDGE FLOODGATE	II
1313652	BRIDGE OVER CALDER AND HEBBLE NAVIGATION (DEWSBURY CUT)	II
1313654	CALDER AND HEBBLE NAVIGATION LOW MILL LANE BRIDGE AND ENTRANCE GATE TO CUT LOW MILL LANE BRIDGE AND ENTRANCE GATE TO CUT	II
1313673	CALDER AND HEBBLE NAVIGATION DOUBLE LOCK AT SHEPLEY BRIDGE	II
1313744	THE WET DOCK	II*
1313800	CALDER AND HEBBLE NAVIGATION KIRKLEES LOW LOCK KIRKLEES CUT KIRKLEES LOW LOCK	II
1313801	CALDER AND HEBBLE NAVIGATION NUMBER 2 LOCK SIR JOHN RAMSDENS CANAL NUMBER 2 LOCK	II
1313802	CALDER AND HEBBLE NAVIGATION NUMBER 4 LOCK SIR JOHN RAMSDENS CANAL NUMBER 4 LOCK	II
1313803	CALDER AND HEBBLE NAVIGATION NUMBER 8 LOCK SIR JOHN RAMSDENS CANAL NUMBER 8 LOCK	II
1313804	CALDER AND HEBBLE NAVIGATION LOCK NUMBER 1 HUDDERSFIELD NARROW CANAL LOCK NUMBER 1	II
1313806	CALDER AND HEBBLE NAVIGATION MILNSBRIDGE BRIDGE HUDDERSFIELD NARROW CANAL MILNSBRIDGE BRIDGE	II
1330015	AQUEDUCT CARRYING THE HALIFAX BRANCH CANAL OVER THE HEBBLE BROOK	II
1365697	CALDER AND HEBBLE NAVIGATION BROOKFOOT LOCK AND FOOTBRIDGE	II
1366092	THE MOORINGS AND SOWERBY MARINE LIMITED	II

Caldon Canal (T&MC) Gd II 40

1037807	CALDON CANAL (LEEK BRANCH) CANAL BRIDGE AT SJ 962 537	II
1037808	CALDON CANAL TUNNEL ENTRANCE SCREEN AT SJ 974 543	II
1038041	FROGHALL WHARF WAREHOUSE	II
1038042	CONSALL NEW LOCK AT SK 004 484	II
1038043	BRIDGE AT CONSALL FORGE, SJ 999 491	II
1038089	FOOTBRIDGE AT SJ 947 537	II
1038091	BRIDGE AT SJ 925 527	II
1038094	CANAL MILE POST AT SJ 980 523	II
1038095	HAZLEHURST AQUEDUCT	II
1038096	BRIDGE AT SJ 950 537	II
1038097	LOCK AT SJ 950 537	II
1038098	BRIDGE AT SJ 950 536	II
1038128	CALDON CANAL BRIDGE AT SJ 919 518 STANLEY ROAD BRIDGE AT SJ 919 518	II
1074944	BRIDGE NUMBER 7 AT SJ 966 537, LEEK BRANCH OF CALDON CANAL	II

1188685	BRIDGE AT SJ 954 535	II
1188892	BRIDGE AT SJ 936 537	II
1188897	BRIDGE NUMBER 29 AT SJ 932 530	II
1189068	TRAMWAY TERMINUS (THAT PART IN IPSTONES CIVIL PARISH) AND RETAINING WALLS APPROXIMATELY 20 METRES EAST OF HEAD OF CALDON CANAL	II
1189083	CHERRYEYE BRIDGE AT SK 014 481	II
1189086	CANAL MILEPOST AT SK 001 485	II
1241340	CANAL MILEPOST AT SJ 9842 5080	II
1241371	MILEPOST AT SJ 9953 4993	II
1241426	LOCK NO 11 CALDON CANAL AT SJ 9492 5373	II
1268635	EAST TUNNEL ENTRANCE ON LEEK ARM OF CALDON CANAL	II
1268636	WEST TUNNEL ENTRANCE ON LEEK ARM OF CALDON CANAL	II
1268637	BARNFIELDS CANAL AQUEDUCT AT NGR SJ 979 551	II
1268638	BRIDGE OVER CANAL (WALL GRANGE FARM) AT NGR SJ 980 549	II
1294516	BRIDGE AT SJ 944 537	II
1294548	BRIDGE AT SJ 948 537	II
1294551	LOCK AT ENTRY TO LEEK BRANCH OF CANAL	II
1294659	BRIDGE AT SJ 981 521 CALDON CANAL	II
1374588	BRIDGE AT SJ 973 525	II
1374589	BRIDGE AT SJ 969 528	II
1374601	LOCK AT SJ 919 518	II
1374622	BRIDGE AT SJ 947 537	II
1374623	CANAL LOCK SIDE POND AT SJ 947 537	II
1374626	BRIDGE NUMBER 47 AT SJ 983 508	II
1374636	BRIDGE AT FROGHALL WHARF	II

R. Cam Gd II 3

1127370	THE CONSERVATORS HOUSE	II
1127047	WAREHOUSE AND GRANARY, APPROX 25 YARDS NORTH OF MERCHANTS HOUSE	II
1331453	THE MERCHANTS HOUSE	II

Carlisle Canal Gd II 5

1137097	SEA LOCK AND WHARF	II
1144626	CANAL AQUEDUCT	II
1144631	CANAL LOCK	II
1312489	HESKET HOUSE (formerly Steam Packet Inn)	II
1335635	CANAL AQUEDUCT	II

Chard Canal Gd II 1

1342043	FORMER CANAL BRIDGE NORTH EAST OF LOWER FARMHOUSE	II

Chelmer & Blackwater Nav Gd II 21

1111012	ULTING LOCK AND LOCK GATES	II
1111033	LANGFORD BRIDGE LANGFORD BRIDGE,CHELMER AND BLACKWATER NAVIGATION	II
1111034	LOCK AND LOCK GATES,APPROXIMATELY 200 METRES WEST OF LANGFORD LOCK	II
1111045	RICKETTS BRIDGE	II
1141290	SPRINGFIELD LOCK INCLUDING LOCK GATES CHELMER AND BLACKWATER NAVIGATION	II
1141366	BRIDGE OVER CHELMER AND BLACKWATER CANAL	II
1147227	WEIR AT RUSHES LOCK	II
1166298	LOCK KEEPERS COTTAGE	II
1237553	LITTLE BADDOW LOCK, INCLUDING LOCK GATES AND FOUR BOLLARDS TO EACH TOW PATH, CHELMER AND BLACKWATER NAVIGATION	II
1237554	BARNES MILL LOCK, INCLUDING GATES, CHELMER AND BLACKWATER NAVIGATION	II
1237555	PAPER MILL LOCK, INCLUDING LOCK GATES, CHELMER AND BLACKWATER NAVIGATION	II
1237556	CUTON LOCK, INCLUDING LOCK GATES AND THREE BOLLARDS TO EACH TOW PATH, CHELMER AND BLACKWATER NAVIGATION	II
1237589	SANDFORD LOCK, INCLUDING GATES, CHELMER AND BLACKWATER NAVIGATION	II
1256952	CANAL LOCK ON CHELMER AND BLACKWATER NAVIGATION	II
1257103	CHAPMANS BRIDGE	II
1264022	SANDFORD BRIDGE, CHELMER AND BLACKWATER NAVIGATION	II
1264058	STONHAMS LOCK, INCLUDING LOCK GATES AND BOLLARDS, CHELMER AND BLACKWATER NAVIGATION	II
1264059	BROOK END BRIDGE, CHELMER AND BLACKWATER NAVIGATION	II
1337365	LANGFORD LOCK AND LOCK GATES	II
1337367	RICKETTS LOCK AND LOCK GATES	II
1337370	RUSHES LOCK AND LOCK GATES	II

Chester C (see Shrops Union)

Chesterfield Canal Gd II* 1 Gd II 31 32

1045059	DEPOSITORY AT CANAL WHARF	II*
1132685	CHESTERFIELD CANAL DEVIL'S HOLE BRIDGE	II
1132686	CHESTERFIELD CANAL BRIDGE 35 AND TOP TREBLE LOCK (TO WEST OF LOW SPRING WOOD)	II
1132708	CHESTERFIELD CANAL NORWOOD BRIDGE	II
1156183	CANAL LOCK AT CANAL WHARF	II
1156723	SWALLOW BRIDGE, CHESTERFIELD CANAL	II
1156858	LADY'S BRIDGE, CHESTERFIELD CANAL	II
1156888	WISETON TOP BRIDGE	II
1192731	CHESTERFIELD CANAL TURNERWOOD FLIGHT OF LOCKS BETWEEN TURNERWOOD BRIDGE AND TURNERWOOD LOCK AT CINDER HILL	II
1192846	CHESTERFIELD CANAL THORPE BRIDGE	II

1192847	CHESTERFIELD CANAL PUDDING DIKE BRIDGE	II
1192850	CHESTERFIELD CANAL THORPE FLIGHT OF LOCKS BETWEEN BRIDGE 35 (TO WEST OF LOW SPRING WOOD) AND TURNERWOOD BRIDGE	II
1212377	CANAL WAREHOUSE AND FIELD FARM HOUSE	II
1244623	TAPTON LOCK	II
1268481	CHESTERFIELD CANAL, OTTERS BRIDGE 68, ST PETERS LANE AT SK 7250 8801	II
1268482	CHESTERFIELD CANAL, LECTURE ROOM BRIDGE 64 AT SK 7272 8463	II
1268483	CHESTERFIELD CANAL, WHITSUNDAY PIE LOCK BRIDGE 60 AT SK 7216 8204	II
1268509	CHESTERFIELD CANAL (SOUTH SIDE), CRANE AT CANAL WHARF AT RETFORD BASIN AT SK 7058 8074	II
1268510	CHESTERFIELD CANAL (EAST SIDE), CANAL MILEPOST TO SOUTH EAST OF FIELD FARM AT SK 7368 8733	II
1268511	CHESTERFIELD CANAL (EAST SIDE), CANAL MILEPOST TO SOUTH EAST OF OTTERS BRIDGE 68 AT SK 7258 8793	II
1269073	CHESTERFIELD CANAL BOUNDARY MARKER AT SK 7700 9455	II
1269075	CHESTERFIELD CANAL, CANAL MILEPOST TO SOUTH EAST OF SHAW LOCK 62 AT SK 7381 9298	II
1269077	CHESTERFIELD CANAL, CANAL MILEPOST AT SK 7082 9093	II
1269084	CHESTERFIELD CANAL, CHEQUERHOUSE BRIDGE 51, OLD BLYTH ROAD	II
1286426	CHESTERFIELD CANAL RYTON AQUEDUCT APPROXIMATELY 80 METRES TO EAST OF BRIDGE AT CINDER HILL	II
1314642	CHESTERFIELD CANAL BRIDGE 37 AND TURNERWOOD LOCK WITH ASSOCIATED OVERFLOW STRUCTURE AT CINDER HILL	II
1314646	CHESTERFIELD CANAL DOG KENNELS BRIDGE	II
1314647	CHESTERFIELD CANAL CANAL MILESTONE APPROXIMATELY 260 METRES TO SOUTH EAST OF DEVIL'S HOLE BRIDGE	II
1314648	CHESTERFIELD CANAL CANAL MILESTONE IMMEDIATELY TO WEST OF MILESTONE LOCK	II
1334661	CHESTERFIELD CANAL, TAPTON HILL BRIDGE OVER CHESTERFIELD CANAL (FIRST BRIDGE TO NORTH OF CANAL JUNCTION WITH RIVER ROTHER)	II
1370381	WHARF BRIDGE	II

Chichester C. (see Ports & Arundel C)

Coombe Hill Canal NIL

Coventry Canal Gd II 32

1034747	COVERED DOCK AND WORKSHOPS AT BRITISH WATERWAYS MAINTENANCE DEPOT	II
1034782	COVENTRY CANAL, ATHERSTONE TOP LOCK AND BASIN BELOW TO NORTH WEST	II
1076584	CANAL WAREHOUSE	II
1184993	COVENTRY CANAL, ATHERSTONE LOCK NUMBER 2	II
1186216	WHITTINGTON ROAD BRIDGE COVENTRY CANAL	II

1186221	LOCK AND BASIN NORTH WEST OF WHITTINGTON ROAD BRIDGE COVENTRY CANAL	II
1197048	COVENTRY CANAL BRIDGE NUMBER 65	II
1197049	COVENTRY CANAL BRIDGE NUMBER 69	II
1197050	COVENTRY CANAL TAME AQUEDUCT WITH ATTACHED PILL BOX	II
1197051	COVENTRY CANAL BRIDGE NUMBER 75	II
1208033	COVENTRY CANAL BRIDGE NUMBER 67	II
1208044	COVENTRY CANAL BRIDGE NUMBER 68	II
1208051	COVENTRY CANAL BRIDGE NUMBER 70	II
1226365	CANAL ROAD BRIDGE	II
1237283	COVENTRY CANAL MILESTONE APPROXIMATELY 100 METRES EAST OF BRIDGE 87 AT SK 1545 1154	II
1251766	COVENTRY CANAL ATHERSTONE LOCK NUMBER 5 AT SP302 980	II
1251839	BRIDGE 30 GRANGE ROAD BRIDGE AT SP 3317 9489 COVENTRY CANAL	II
1251841	MILESTONE BETWEEN BRIDGES 34 AND 35 AT SP 3197 9572 COVENTRY CANAL	II
1251842	BRIDGE 37 RAWNHILL BRIDGE AT SP 3120 9692 COVENTRY CANAL	II
1252603	COVENTRY CANAL MILESTONE BETWEEN BRIDGES 48 AND 49 AT SK 2824 0052	II
1261659	MILESTONE BETWEEN BRIDGES 27 AND 28 AT SP 3432 9381, COVENTRY CANAL	II
1262576	STABLE BLOCK AT HARTSHILL YARD COVENTRY CANAL	II
1262577	BRIDGE 33 AT SP 3257 9529 COVENTRY CANAL	II
1262618	COTTAGE WITH ATTACHED LOBBY, WALLED YARDS AND WASH HOUSE AT ATHERSTONE LOCK NUMBER 5 COVENTRY CANAL	II
1293338	COVENTRY CANAL TOWPATH BRIDGE TO ENTRANCE TO BASIN	II
1293350	COVENTRY CANAL MILEPOST 107 METRES TO NORTH EAST OF BRIDGE NUMBER 6	II
1297310	COVENTRY CANAL BRIDGE NUMBER 66 (A SKEW BRIDGE)	II
1342940	CANAL HOUSE COVENTRY	II
1365077	ENGINE HOUSE	II
1365191	LOCK AND BASIN SOUTH EAST OF WHITTINGTON ROAD BRIDGE COVENTRY CANAL	II
1374244	COVENTRY CANAL MILESTONE AT NGR SK 14861039	II
1374268	COVENTRY CANAL SWAN BRIDGE	II

Cromford Canal SM 5 Gd II 18 23

1109015	CROMFORD CANAL EMBANKMENT	II
1109040	CANAL BRIDGE AT SK 4380 5170	II
1109041	LOCK TO CROMFORD CANAL AT SK 443 506	II
1109170	CANAL BRIDGE	II
1109194	CANAL COTTAGES	II
1158714	LOCK TO CROMFORD CANAL AT SK 440 517	II
1158721	CANAL BRIDGE AT SK 4345 5156	II
1244629	SOUTHERN WAREHOUSE AT CROMFORD WHARF	II
1244630	COUNTING HOUSE AT CROMFORD WHARF	II

1244631	NORTHERN WAREHOUSE AT CROMFORD WHARF	II
1244632	SIDE WALLS AND CURBS TO CROMFORD CANAL BASIN AND FEEDER CHANNEL	II
1244633	WHARF COTTAGE (NOW ROSE COTTAGE AND MEADOW CLOSE)	II
1244652	NORTHERN RETAINING WALL WITH LOADING BAYS AT CROMFORD WHARF	II
1311200	CANAL BRIDGE TO EAST OF CANAL COTTAGES	II
1311257	CANAL TUNNEL AND EMBANKMENT UNDER ROAD TO WEST OF CAR PARK TO EXCAVATOR PUBLIC HOUSE	II
1335399	CANAL BRIDGE SOUTH WEST OF CRICH CHASE FARMHOUSE	II
1367138	FORMER CANAL LENGTHMANS COTTAGE	II
1391065	LOCK ON CROMFORD CANAL AT SK442 515	II
1404832	Butterley Works blast furnaces, canal tunnel and underground wharf	SM
1007025	Aqueduct, 328m south east of Aqueduct Cottage	SM
1007026	Workshops, offices and terminus (Cromford and High Peak Railway)	SM
1007040	Cromford Canal engine house, engine and aqueduct	SM
1422984	Fritchley Tunnel, Butterley Gangroad	SM

Croydon Canal NIL

Dearne & Dove Canal Gd II 4

1151022	CANAL BASIN AND ASSOCIATED CULVERT AND CANAL LINING AT SE3930 0095	II
1151175	SMITHY BRIDGE	II
1151177	CANAL BASIN AND ASSOCIATED CULVERT AND CANAL LINING AT SE 3930 0095	II
1286501	WET MOOR BRIDGE	II

Derby Canal Gd II 2

1204353	CANAL BRIDGE AT SK 412 347	II
1329210	CLOCK HOUSE	II

Derwent Nav (E.Yorks) Gd II 1

1309871	DERWENT NAVIGATION STAMFORD BRIDGE LOCK	II

Dick Brook (Severn) Gd II 1

1349458	PACKHORSE BRIDGE ON DICK BROOK SOUTH OF CHURCH OF ST PETER	II

Donnington Wood C Gd II 3

1038250	No name for this Entry (Hugh Bridge The Incline)	II
1208351	FORMER CANAL BRIDGE IMMEDIATELY SOUTH EAST OF LILLESHALL ABBEY	II
1015286	Lilleshall Abbey (CANAL REMAINS)	II

Dorset & Somerset C. Gd II 4

1057648	CANAL BRIDGE AT OS 321300	II
1058898	BRIDGE AND WALLING OF BANK OF FORMER NGR ST 7728 4993 TO NGR ST 7740 4987	II

1174214	MURTRY AQUEDUCT	II
1175761	FORMER AQUEDUCT AT NGR ST68474874	II

Driffield Nav. Gd II 6

1083382	CRANE APPROXIMATELY 60 METRES EAST OF NUMBER 5, RIVER HEAD	II
1084142	LOCK BELOW CANAL HEAD, DRIFFIELD CANAL	II
1162191	WHINHILL LOCK	II
1162232	WANSFORD LOCK	II
1261822	SNAKEHOLME LOCKS, DRIFFIELD CANAL	II
1346637	CRANE APPROXIMATELY 120 METRES SOUTH EAST OF MORTIMER'S WAREHOUSE	II

Droitwich Canals Gd II 4

1081168	LINACRE BRIDGE	II
1081169	MILDENHAM LOCK NO 6	II
1172780	MILDENHAM BRIDGE	II
1350222	SALWARPE BRIDGE	II

Erewash Gd II 16

1087935	CRANFLEET LOCK	II
1087968	CANAL BRIDGE AT SK 484 351	II
1087973	SANDIACRE LOCK	II
1087974	BRIDGE AT SANDIACRE LOCK	II
1109142	CANAL BRIDGE AT SHIPLEY GATE SK 463 454	II
1109143	AQUEDUCT OVER THE RIVER EREWASH AND UNDER EREWASH CANAL AT SK 462 455	II
1140438	GREENS LOCK	II
1140440	POTTERS LOCK BRIDGE	II
1204172	LOCK AT SK 484 351	II
1204213	LONG EATON LOCK	II
1204307	CANAL BRIDGE AT SK 496 313	II
1204499	CANAL BRIDGE ON EREWASH CANAL AT SK 484 376	II
1280677	POTTERS LOCK	II
1329244	HALLAM FIELDS LOCK	II
1334853	CANAL BRIDGE AT SK 481 367	II
1335339	LOCK, LOCK GATES AND BASIN AT SHIPLEY GATE SK 463 454	II

Exeter Canal Gd I 2 Gd II* 4 Gd II 5 TOTAL 11

1097037	THE TURF LOCK	II
1169607	NORTH WAREHOUSE EXETER QUAY	II
1223038	CUSTOM HOUSE, WHARFINGER'S HOUSE AND ATTACHED WAREHOUSE	I
1223041	HARBOURMASTER'S OFFICE, THE QUAY	II*
1223045	WAREHOUSE VAULTS, 1-4, THE QUAY	II*

1223046	WAREHOUSE VAULTS, 6-11, THE QUAY	II*
1223047	FISH MARKET, THE QUAY	II*
1223072	QUAY HOUSE (PREMISES OF THE DIY SUPPLIES EXETER LIMITED)	I
1223114	VAULTS 14-25, THE QUAY	II
1223129	FOUR CANNON BOLLARDS	II
1267461	PART OF THE PREMISES OF CAESAR'S RESTAURANT, THE QUAY	II

Fletchers C (MB&BC) NIL

Foss Nav (Yorks) Gd II* 1 Gd II 1

1257827	FOSS BRIDGE	II*
1259357	CASTLE MILLS LOCK	II

Fossdyke Nav. Gd II 2

inc Witham Nav

1147315	TORKSEY LOCK AND FOOTBRIDGE	II
1389076	GRAND SLUICE AND BRIDGE AND LIGHTS	II

Glastonbury Canal NIL

Glasson B. (see Lancaster C)

Gloucester & Sharpness C Gd II 31

1090516	LOCK AND LOCKGATES CANAL (NORTH WEST SIDE OF GLOUCESTER AND SHARPNESS CANAL, AND IMMEDIATELY WEST OF BRIDGE OVER SAME)	II
1090814	MILEPOST AT NATIONAL GRID REFERENCE SO7412 0643	II
1091309	MILEPOST AT NATIONAL GRID REFERENCE SO7412 0643	II
1091310	MILESTONE AT NATIONAL GRID REFERENCE SO 755 092	II
1091311	MILEPOST AT NATIONAL GRID REFERENCE SO 767 102	II
1237982	BRIDGEKEEPER'S HOUSE ON THE GLOUCESTER SHARPNESS CANAL	II
1237989	NORTH WAREHOUSE NEW DOCK SHARPNESS	II
1238362	MILEPOST AT NATIONAL GRID REFERENCE SO 682 038	II
1245466	NORTH WAREHOUSE THE DOCKS GLOUCESTER	II
1245599	DOCK COMPANY OFFICE	II
1245601	DRY DOCK NORTH OF ENGINE HOUSE	II
1245602	DRY DOCK SOUTH OF ENGINE HOUSE INCLUDING CRANE	II
1245603	FOXS MALTHOUSE	
1245604	GLOUCESTER LOCK	II

1245605	HERBERT WAREHOUSE	II
1245606	KIMBERLEY WAREHOUSE	II
1245607	LLANTHONY WAREHOUSE	II
1245608	LOCK WAREHOUSE	II
1245609	MARINERS CHAPEL	II
1245823	MILEPOST AT NGR SO 813 155	II
1253734	MILEPOST AT NATIONAL GRID REFERENCE SO 779 112	II
1271707	DOWNINGS MALTHOUSE, MERCHANTS ROAD	II
1271708	DOWNINGS MALTHOUSE EXTENSION	II
1271710	LLANTHONY PROVENDER MILL	II
1271711	PILLAR WAREHOUSE	II
1271792	ALEXANDRA WAREHOUSE	II
1274239	MILEPOST AT NATIONAL GRID REFERENCE SO 708 040	II
1274240	MILEPOST AT NATIONAL GRID REFERENCE SO 694 041	II
1274427	FORMER HARBOURMASTER'S HOUSE ON OLD DOCK AT WESTERN END OF GLOUCESTER SHARPNESS CANAL	II
1340594	GLOUCESTER AND SHARPNESS CANAL MILEPOST AT NGR SO 724 041	II

Grand Junction C (see Grand Union C)

Grand Surrey Canal **NIL**

Grand Union Canal **SM 3** **GD II* 7** **Gd II 200** **210**

incl: Grand Junction C
Grand Union C. (Old)
Leicester Line
Paddington Arm
Regents Canal and basins
Warwick & Birmingham
Warwick & Napton
Aylesbury Arm
Buckingham Arm
Hertford Union
Market Harborough Arm
Northampton Arm
Slough Arm
Welford Arm
Wendover Arm

1035578	GRAND UNION CANAL, SHOP LOCK APPROXIMATELY 7 METRES NORTH OF COTTAGE NUMBER 221	II
1035580	GRAND UNION CANAL, COTTAGE, SHOP LOCK	II

1040375	GRAND UNION CANAL NORTHAMPTON ARM LOCK NUMBER 13 AT SP 725 574	II
1040560	BRIDGE NUMBER 190 AT AYNHO WHARF	II
1040947	LOCK NUMBER 14 STOKE TOP LOCK	II
1040948	LOCK NUMBER 15	II
1040949	LOCK NUMBER 18	II
1040997	LOCK NUMBER 1 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1040998	LOCK NUMBER 3 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1040999	LOCK NUMBER 5 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1041000	LOCK NUMBER 6 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1041001	LOCK NUMBER 7 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1041002	LOCK NUMBER 9	II
1041058	BRIDGE NUMBER 42	II
1052193	GRAND UNION CANAL BRIDGE NUMBER 58 AT SP 763 452	II
1054844	GRAND UNION CANAL LITTLE BRAUNSTON BRIDGE NUMBER 4	II
1054856	GRAND UNION CANAL LITTLE BRAUNSTON LOCK KEEPERS COTTAGE AND SPILLWAY AT BRIDGE NUMBER 3	II
1061437	BRIDGE NUMBER 67, GRAND UNION CANAL	II
1061460	BRIDGE NUMBER 60, GRAND UNION CANAL	II
1061475	MILEPLATE IMMEDIATELY WEST OF BRIDGE NUMBER 55, GRAND UNION CANAL	II
1061493	GRAND UNION CANAL BRIDGE NUMBER 54	II
1061501	BRIDGE NUMBER 61 FOXTON BOTTOM LOCK, GRAND UNION CANAL	II
1061515	GRAND UNION CANAL BRIDGE NUMBER 42	II
1065739	STABLE BLOCK TO NORTH WEST OF LOCK COTTAGE REGENTS CANAL	II
1067803	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 3 (WILSTONE BRIDGE) AND LOCK NUMBER 8 ADJOINING ON EAST	II
1068548	GRAND UNION CANAL BRIDGE NUMBER 2 (GAMNEL BRIDGE) AT TRINGFORD ROAD	II
1075576	ROVING BRIDGE OVER ENTRANCE TO BIRMINGHAM AND WARWICK JUNCTION CANAL AT BORDESLEY JUNCTION WITH WARWICK AND BIRMINGHAM CANAL	II
1075624	CANAL SIDE WAREHOUSE WITH STOP LOCK AND DOCK, WARWICK BAR, WARWICK AND BIRMINGHAM CANAL	II
1076132	ROVING BRIDGE (NUMBER 110) OVER ENTRANCE TO GRAND UNION (BIRMINGHAM AND WARWICK JUNCTION) CANAL AT SALFORD JUNCTION	II
1076425	GRAND UNION CANAL BRIDGE APPROXIMATELY 25 METRES SOUTH OF SOUTH ENTRANCE TO CRICK TUNNEL	II
1076426	GRAND UNION CANAL NORTH ENTRANCE TO CRICK TUNNEL	II
1076440	BRIDGE (at Braunston)	II
1076441	OLD TOLL HOUSE	II
1076442	STORE ROOM, BRAUNSTON WHARF	
1076443	DRY DOCK	II
1076445	GRAND UNION CANAL WEST ENTRANCE TO BRAUNSTON TUNNEL	II
1076446	GRAND UNION CANAL BRIDGES NUMBERS 93 AND 94	II

1076447	GRAND UNION CANAL LITTLE BRAUNSTON BRASENOSE CHANDLERY	II
1076448	GRAND UNION CANAL LITTLE BRAUNSTON LOCK AT BRIDGE NUMBER 4	II
1076488	MILESPOST WEST OF WINDLASS COTTAGE BY TOWPATH OF GRAND UNION CANAL	II
1076513	FORMER WEEDON BARRACKS, CANAL ENCLOSURE WALL TO NORTH	II*
1077019	GRAND UNION CANAL BRIDGE	II
1077029	GRAND UNION CANAL LEICESTER LINE BRIDGE NUMBER 3 (BALL'S BRIDGE) AT SP 597668	II
1077032	GRAND UNION CANAL LONG BUCKBY WHARF BRIDGE NUMBER 12	II
1078015	MILEPOST ON TOWPATH NEAR WILSTONE AT NATIONAL GRID REFERENCE SP 9024 1435	II
1078016	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 6 NEAR WILSTONE AT NATIONAL GRID REFERENCE SP 8990 1427	II
1078329	GLOUCESTER GATE BRIDGE	II
1080184	BRIDGE OF THE GRAND UNION CANAL ADJOINING THE SHOVEL INN	II
1096025	STOP LOCK BRIDGE AT THE JUNCTION OF REGENTS CANAL AND HERTFORD UNION CANAL	II
1100407	LOCK NO 48 AND BRIDGE NO 138 ON GRAND UNION CANAL	II
1100812	BRIDGE NUMBER 163 50 METRES SOUTH WEST OF GROVE WHARF	II
1100838	STOCKERS LOCK NUMBER 82	II
1100841	CASSIO BRIDGE LOCK NUMBER 78	II
1100916	HOME PARK LOCK	II
1101131	CANAL BRIDGE 200 METRES TO NORTH OF DOWER HOUSE	II
1113238	THE INTERCHANGE ON NORTH SIDE OF GRAND UNION CANAL INCLUDING THE HORSE TUNNEL AND STAIRS, VAULTS AND CANAL BASIN	II
1113239	THE INTERCHANGE CANAL TOWPATH BRIDGE OVER PRIVATE CANAL ENTRANCE	II
1115973	GRAND UNION CANAL TALBOT'S CANAL LOCK 23 GRAND UNION CANAL	II
1115975	GRAND UNION CANAL PUMPING STATION TO EAST OF LOCK 23	II
1116006	GRAND UNION CANAL LOCKS 24, 25 AND 26	II
1117834	BRIDGE 116	II
1117851	PUMPING STATION AT LOCK 38 GRAND UNION CANAL	II
1117852	BRIDGE NUMBER 129 GRAND UNION CANAL	II
1117853	BRIDGE NUMBER 130 GRAND UNION CANAL	II
1117854	BRIDGE NUMBER 132 GRAND UNION CANAL	II
1117855	LOCK 39 GRAND UNION CANAL	II
1117857	LOCK 45 AND ADJACENT DRY DOCK GRAND UNION CANAL	II
1117877	BRIDGE NUMBER 121 GRAND UNION CANAL	II
1117878	PUMPING STATION TO WEST OF BRIDGE NUMBER 121 GRAND UNION CANAL	II
1117879	LOCK 31 GRAND UNION CANAL	II
1117880	BRIDGE NUMBER 122 GRAND UNION CANAL	II
1117881	PUMPING STATION AT LOCK 33 GRAND UNION CANAL	II
1117882	LOCK 35 GRAND UNION CANAL	II
1117890	WORKSHOP ADJACENT TO NORTH OF WORKSHOP WITH WATER TOWER	II
1117891	STORE 120 METRES TO NORTH WEST OF CANAL BRIDGE	II

1117894	BRIDGE NUMBER 126 GRAND UNION CANAL	II
1118464	CANAL BRIDGE	II
1125438	CANAL BRIDGE	II
1160644	BRIDGE OVER CANAL IN GROUNDS OF HALTON HOUSE	II
1160850	LOCK 33 GRAND UNION CANAL	II
1160856	BRIDGE NUMBER 123 GRAND UNION CANAL	II
1160884	PUMPING STATION AT LOCK 35 GRAND UNION CANAL	II
1161064	LOCKS 1 AND 2 GRAND UNION CANAL AYLESBURY ARM	II
1172996	NORTH GROVE LOCK	II
1173257	BRIDGE CARRYING WATFORD ROAD (A41) OVER THE GRAND CANAL	II
1173544	BRIDGE NUMBER 175 AT STOCKER'S LOCK	II
1174062	NASH MILLS LOCK ON GRAND UNION CANAL	II
1180252	GRAND UNION CANAL BRIDGE NUMBER 48	II
1185702	GRAND UNION CANAL, BASCOTE LOCKS, FLIGHT OF THREE LOCKS WEST OF BRIDGE NUMBER 28 (NOT INCLUDED)	II
118817	GRAND UNION CANAL BRIDGE NUMBER 51	II
1189379	LOCK NUMBER 11 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1189553	BULL'S BRIDGE NUMBER 21 OVER GRAND UNION CANAL AND GRAND UNION CANAL (PADDINGTON BRANCH) JUNCTION	II
1189617	BRIDGE NUMBER 53	II
1189628	LOCK NUMBER 16	II
1189639	LOCK NUMBER 19	II
1190453	BRIDGE NUMBER 47	II
1190608	BRIDGE NUMBER 65	II*
1191783	LOCK NUMBER 2 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1191790	BRIDGE NUMBER 5 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1191792	LOCK NUMBER 8 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1191798	LOCK NUMBER 12 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1195784	EAST ENTRANCE TO THE ISLINGTON TUNNEL OF THE REGENT'S CANAL, AND FLANKING WALLS	II
1203443	FORMER WEEDON BARRACKS, WEST LODGE	II*
1204162	GRAND UNION CANAL LOWER GATE HOUSE	II
1208064	WEST PORTAL AND ISLINGTON TUNNEL (REGENTS CANAL)	II
1216544	WAREHOUSE EAST OF UNION WHARF	II
1216621	BRIDGE NUMBER 27 AT SP 6167 7614, GRAND UNION CANAL	II
1216623	BRIDGE NUMBER 29 AT SP 6210 7698, GRAND UNION CANAL	II
1219325	GRAND UNION CANAL PUMPING STATION TO NORTH OF GRAND UNION CANAL AT THREE LOCKS	II
1227628	CUMBERLAND FOOTBRIDGE	II*
1228494	BRIDGE NUMBER 36 AT SP 6152 8014, GRAND UNION CANAL	II

1229030	BRIDGE NUMBER 39 AT SP 6245 8143, GRAND UNION CANAL	II
1229679	BRIDGE NUMBER 21 AT SP 6095 7437, GRAND UNION CANAL	II
1229684	BRIDGE NUMBER 18 AT SP 6016 7439, GRAND UNION CANAL	II
1229956	BRIDGE NUMBER 22 (HADDON ROAD BRIDGE) AT SP611742, GRAND UNION CANAL LEICESTER LINE	II
1230286	COSSINGTON LOCK AND GATES ON RIVER SOAR	II
1232726	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 10	II
1232758	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 14	II
1242067	KEGWORTH SHALLOW LOCK	II
1242313	BRITISH WATERWAYS CUSTOMS HOUSE ON WEST QUAY OF REGENT'S CANAL DOCK ENTRANCE	II
1244300	REGENTS CANAL INFORMATION CENTRE, 289, CAMDEN HIGH STREET	II
1246101	BLUE BRIDGE	II
1248358	BRITISH WATERWAY BOARD CANAL OFFICE	II
1248366	WHARFSIDE SHELTER AND STORE TO REAR OF TRAVIS PERKINS BUILDERS MERCHANTS	II
1248415	JUNCTION HOUSE, REGENTS CANAL	II
1249266	GRAND UNION CANAL NORTHAMPTON ARM DRAWBRIDGE, IMMEDIATELY NORTH OF LOCK NUMBER 13 AT SP 725 574	II
1251158	GRAND UNION CANAL BRIDGE NUMBER 10 AT SP 602 656	II
1251722	LOCK NUMBER 4	II
1252319	GRAND UNION CANAL LEICESTER LINE WHARF HOUSE, CRICK WHARF	II
1253006	SHREWLEY TUNNEL SOUTH PORTAL ON GRAND UNION CANAL	II
1253600	GRAND UNION CANAL BRIDGE NUMBER 56 AT SP 762 480	II
1253601	GRAND UNION CANAL BRIDGE NUMBER 63 AT SP 781 445	II
1260219	OLD LOCK RIVER SOAR	II
1260227	PARNELL ROAD BRIDGE AT TQ 367 840	II*
1261975	SHREWLEY TUNNEL NORTH PORTAL ON GRAND UNION CANAL	II
1262339	GRAND UNION CANAL LEICESTER LINE BRIDGE NUMBER 2 AT SP600663	II
1262351	GRAND UNION CANAL BRIDGE NUMBER 52 AT SP662 875	II
1264865	HAGGERSTON BRIDGE REGENTS CANAL	II
1265137	BRIDGE OVER GRAND UNION CANAL	II
1265268	PRIMROSE HILL CANAL FOOTBRIDGE	II
1272427	HAMPSTEAD ROAD LOCK ON THE GRAND UNION CANAL	II
1272428	ROVING BRIDGE OVER GRAND UNION CANAL WEST OF HAMPSTEAD ROAD LOCK	II
1272512	LOCK KEEPERS COTTAGE ON THE GRAND UNION CANAL	II
1273677	CORPORATION YARD	II
1276948	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 12	II
1278960	BRIDGE NUMBER 24 AT SP 6202 7467, GRAND UNION CANAL	II
1279282	BRIDGE NUMBER 38 AT SP 6217 8090, GRAND UNION CANAL	II

1281680	FORMER WEEDON BARRACKS, CANAL ENCLOSURE WALL TO SOUTH	II*
1286870	BRIDGE NUMBER 27 AT SP 644 590 GRAND UNION CANAL	II
1286885	LOCK NUMBER 10 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1286921	LOCK NUMBER 4 ON NORTHAMPTON ARM OF GRAND UNION CANAL	II
1287168	BRIDGE NUMBER 33 AT SP 6120 7940, GRAND UNION CANAL	II
1290541	GRAND UNION CANAL AQUEDUCT OVER RIVER TAME, JUST SOUTH OF SALFORD JUNCTION	II
1293813	BRIDGE NUMBER 43	II
1294177	SOUTH PORTAL OF BLISWORTH TUNNEL	II
1294196	BRIDGE NUMBER 59, GRAND UNION CANAL	II
1294198	MILEPLATE CIRCA 56 METRES WEST OF BRIDGE NO. 59 GRAND UNION CANAL	II
1295909	CANAL BRIDGE NUMBER 164 ABOUT 400 METRES EAST OF THE GROVE	II
1307401	TURNOVER BRIDGE OVER GRAND UNION CANAL	II
1310162	LOCK NUMBER 29 GRAND UNION CANAL	II
1310310	WORKSHOP 100 METRES TO NORTH WEST OF CANAL BRIDGE	II
1310364	LOCK NUMBER 34 GRAND UNION CANAL	II
1310656	THE WHARF HOUSE	II
1315888	GRAND UNION CANAL BRIDGE NUMBER 7	II
1319263	LOCK 38 GRAND UNION CANAL	II
1319264	CANAL HOUSE GRAND UNION CANAL AYLESBURY ARM	II
1320176	GRAND UNION CANAL BRIDGE TO NORTH OF LOCK 23	II
1332233	LOCK VIEW PINE VIEW	II
1332729	CANAL BRIDGE NUMBER 184 TO EAST OF NEW MILLS AND LOCK ATTACHED	II
1332840	CANAL LOCK	II
1332876	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 11	II
1332877	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 8	II
1342201	GRAND UNION CANAL BRIDGE NUMBER 134 (HIGH BRIDGE) AT MARSHCROFT LANE	II
1342232	GRAND UNION CANAL AYLESBURY ARM BRIDGE NUMBER 2 (DIXONS GAP BRIDGE) AND LOCK NUMBER 6 ADJOINING ON EAST	II
1342732	GRAND UNION CANAL FLIGHT OF 7 LOCKS AND SIDE PONDS	II
1342978	GRAND UNION CANAL MILEPOST AT NORTON JUNCTION, BESIDE TOW PATH OF LEICESTER BRANCH OF GRAND UNION CANAL	II
1343005	BRIDGE NUMBER 14 OVER GRAND UNION CANAL	II
1343014	GRAND UNION CANAL SOUTH ENTRANCE TO CRICK TUNNEL	II
1343024	GRAND UNION CANAL LITTLE BRAUNSTON LOCK AT BRIDGE NUMBER 2	II
1343025	GRAND UNION CANAL LITTLE BRAUNSTON DRY DOCK	II
1348220	MILE POST ON TOWING PATH IMMEDIATELY SOUTH OF BRIDGE CARRYING A 405 OVER CANAL	II
1348469	LOCK NO 46 AND ADJOINING BRIDGE NO 137 ON GRAND UNION CANAL	II
1357545	LOCK COTTAGE	II

1357546	TOP LOCK AT TQ 3675 8398	II
1360719	GRAND UNION CANAL WELFORD ARM BRIDGE AT BOSWORTH MILL	II
1360738	BRIDGE NO 79	II
1360739	BRIDGE NUMBER 58, GRAND UNION CANAL	II
1360747	GRAND UNION CANAL BRIDGE NUMBER 53	II
1360753	FOXTON LOCKS, GRAND UNION CANAL LEICESTER LINE	II*
1364731	BRIDGE OVER FORMER BUCKINGHAM ARM OF GRAND UNION CANAL	II
1371520	BRIDGE NUMBER 45	II
1371575	SIMONS COTTAGE	II
1371612	LOCK NUMBER 17	II
1371613	LOCK NUMBER 20 STOKE BOTTOM LOCK	II
1371635	THE HORSE TUNNEL	II
1387175	CANAL BRIDGE	II
1387176	BEDEHOUSE TOWPATH BRIDGE	II
1001963	Hanwell flight of locks and brick boundary wall of St Bernard's Hospital	SM
1006934	Wolverton iron trunk aqueduct	SM
1018832	Inclined plane immediately east of Foxton Lock	SM

Grand Western Canal Gd II 18

1060354	AQUEDUCT AT NGR ST 1468 2234	II
1105877	BATTEN'S BRIDGE (024136)	II
1105879	BRIDGE AT SS994121	II
1105883	CROWNHILLS BRIDGE	II
1105890	SELLICK BRIDGE	II
1106641	GREENWAY BRIDGE	II
1106646	ROCK BRIDGE	II
1140104	TWIN CULVERTS AT ST 0643 1643	II
1140142	WAYTOWN LIMEKILNS	II
1177043	REMAINS OF CANAL LIFT AT NGR ST 1441 2181	II
1236821	MILESTONE IX AT ST 0647 1635	II
1236822	FENACRE BRIDGE	II
1307612	AQUEDUCT AT NGR 1438 2178	II
1325913	WAYTOWN TUNNEL	II
1326158	BRIDGE AT SS998132	II
1326178	CANAL BUILDING ADJOINING NOS 2 AND 3 TO SOUTH EAST	II
1344546	CANAL BRIDGE AT NGR ST 1665 2315	II
1384779	CANAL BASIN LIME KILNS AT NGR SS 9638 1241	II

Grantham Canal Gd II 20

1045645	GRANTHAM CANAL, CANAL 9 1/4 MILES POST SOUTH OF COLSTON BRIDGE	II

1210918	GRANTHAM CANAL, CANAL 7 MILES POST EAST OF FOSS BRIDGE	II
1227662	GRANTHAM CANAL, 13 MILES POST WEST OF MAIN STREET, HICKLING	II
1227663	GRANTHAM CANAL, 13 1/4 MILES POST EAST OF MAIN STREET, HICKLING	II
1227664	GRANTHAM CANAL, 14 3/4 MILES POST NORTH OF THE NEW CANAL FARM	II
1227675	GRANTHAM CANAL, 11 1/2 MILES POST SOUTH OF IRISH JACKS BRIDGE	II
1227676	GRANTHAM CANAL, 12 1/2 MILES POST SOUTH EAST OF MAIN STREET	II
1227677	GRANTHAM CANAL, 14 1/4 MILES POST EAST OF CLARKS BRIDGE	II
1235817	CANAL WAREHOUSE NORTH WEST OF WHARF HOUSE,	II
1235885	GRANTHAM CANAL, 11 MILES POST NORTH OF IRISH JACKS BRIDGE	II
1235888	GRANTHAM CANAL, 12 MILES POST SOUTH EAST OF MAIN STREET, KINOULTON	II
1235901	GRANTHAM CANAL, CLARKS BRIDGE	II
1236343	GRANTHAM CANAL, 10 3/4 MILES POST SOUTH WEST OF WILD'S BRIDGE	II
1236719	GRANTHAM CANAL, VINCENTS BRIDGE ON GRANTHAM CANAL	II
1264664	GRANTHAM CANAL, 9 3/4 MILES POST NORTH OF SPENCER'S BRIDGE	II
1264809	GRANTHAM CANAL, 10 1/4 MILES POST WEST OF OWTHORPE LANE	II
1265242	GRANTHAM CANAL, 13 3/4 MILES POST EAST OF MAIN STREET, HICKLING	II
1265243	GRANTHAM CANAL, AQUADUCT OVER RIVER SMITE APPROXIMATELY 800 METRES SOUTH WEST OF LONG CLAWSON BRIDGE	II
1360315	DENTON CANAL BRIDGE (NO 65 ON GRANTHAM CANAL)	II

Gresley's Canals (N-u-L) NIL

Hackney Canal (see Stover C.)

Hereford & Gloucester Canal Gd II 3

1099299	LOCK COTTAGE AND FORMER LOCK	II
1248345	HOUSE LOCK ON HEREFORD AND GLOUCESTER CANAL	II
1349186	CANAL BRIDGE	II

Horncastle Canal NIL

Huddersfield Broad Canal see CALDER & HEBBLE

Huddersfield Narrow C. Gd II* 1 Gd II 44 Total 45

1067432	HUDDERSFIELD NARROW CANAL NO. 84 AQUEDUCT	II
1068037	HUDDERFIELD NARROW CANAL WINTERFORD BRIDGE AND LOCK NUMBER W14	II
1162961	HUDDERSFIELD NARROW CANAL SCOUT TUNNNEL, SOUTH ENTRANCE	II
1163250	HUDDERSFIELD NARROW CANAL NO. 85 DIVISION BRIDGE (IN SADDLEWORTH)	II
1163263	HUDDERSFIELD NARROW CANAL LOCK NO 22W (DUNGE BOOTH LOCK)	II
1220248	CANAL WAREHOUSE AT NORTH END	II
1224052	ENGINE HOUSE, ENGINE PIT AND BYE PIT, RED BROOK	II
1234421	HUDDERSFIELD NARROW CANAL; BOOTHS BRIDGE	II

1234422	HUDDERSFIELD NARROW CANAL BRIDGE 62 AND ACCESS DUCT	II
1234423	HUDDERSFIELD NARROW CANAL; GOLCAR SWING BRIDGE	II
1234424	HUDDERSFIELD NARROW CANAL; BRIDGE AT OLD BANK	II
1234425	HUDDERSFIELD NARROW CANAL; BRIDGE OVER OUTLET TO SPARTH RESERVOIR	II
1234426	HUDDERSFIELD NARROW CANAL; 4 MILES POST ADJACENT LOCK 18	II
1234613	HUDDERSFIELD NARROW CANAL; SHAW CARR WOOD BRIDGE	II
1234616	HUDDERSFIELD NARROW CANAL; WARING BRIDGE	II
1240125	HUDDERSFIELD NARROW CANAL, MILESTONE AT SD 979 030	II
1243465	HUDDERSFIELD NARROW CANAL WATERWAYS DEPOT AT SE 0407 1198	II
1243466	HUDDERSFIELD NARROW CANAL, MILESTONE AT SE 053 120	II
1243467	HUDDERSFIELD NARROW CANAL, MILESTONE AT THE END OF BOUNDARY WALL AT SE 062 131	II
1243468	HUDDERSFIELD NARROW CANAL, MILESTONE AT SE 104 155	II
1253530	HUDDERSFIELD NARROW CANAL LOCK ADJACENT TO WARD ROAD BRIDGE	II
1253531	HUDDERSFIELD NARROW CANAL HALLS BRIDGE AND LOCK 20W AT SD 994 049	II
1253532	HUDDERSFIELD NARROW CANAL MOORGATE BRIDGE	II
1255232	HUDDERSFIELD NARROW CANAL PADDOCK LOCK 5E	II
1261182	HUDDERSFIELD NARROW CANAL, LOCK 16W TAIL BRIDGE AT DS 982 035	II
1261183	HUDDERSFIELD NARROW CANAL, BLACK ROCK BRIDGE AT SD 976 004	II
1261184	HUDDERSFIELD NARROW CANAL, MILESTONE SET IN BOUNDARY WALL AT SJ 968 988	II
1266900	AQUEDUCT AND WEIR	II
1266901	ENTRANCE PORTAL TO STANDEDGE CANAL TUNNEL	II*
1276034	HUDDERSFIELD NARROW CANAL; 5 MILES POST ADJACENT TO EMPIRE WORKS	II
1276053	HUDDERSFIELD NARROW CANAL; SCARWOOD BRIDGE	II
1276128	HUDDERSFIELD NARROW CANAL; BRIDGE AT LOCK 42	II
1276129	HUDDERSFIELD NARROW CANAL; GOLCAR BROOK BRIDGE	II
1276130	HUDDERSFIELD NARROW CANAL; PIG TAIL BRIDGE	II
1276131	HUDDERSFIELD NARROW CANAL; WHITE SYKE BRIDGE	II
1309457	HUDDERSFIELD NARROW CANAL SCOUT TUNNEL NORTH ENTRANCE	II
1309462	HUDDERSFIELD NARROW CANAL DIVISION BRIDGE (THAT PART IN MOSSLEY)	II
1356441	HUDDERSFIELD NARROW CANAL MICKLEHURST BRIDGE AND LOCK NUMBER W13	II
1356465	HUDDERSFIELD NARROW CANAL STAKES AQUEDUCT AND TOW PATH BRIDGE (AQUEDUCT BRIDGE) OVER RIVER TAME	II
1356719	HUDDERSFIELD NARROW CANAL LOCK NO.23 (LIME KILN LOCK AND ADJOINING TAILBRIDGE NO.75 AND AQUEDUCT NO. 74)	II
1390053	THE ROYAL GEORGE CANAL BRIDGE	II

Ipswich & Stowmarket N. Gd II 4

1181881	BRIDGE OVER RIVER GIPPING WITH ATTACHED LOCK EAST OF BAYLHAM MILL	II
1261325	STOWMARKET NAVIGATION CREETING LOCK AND BRIDGE	II

1263014	NORTH WAREHOUSE AT FISONS HORTICULTURAL DIVISION WORKS	II
1352018	BRIDGE AND LOCK, IMMEDIATELY SOUTH WEST OF BAYLHAM MILL	II

River Irwell see Bridgewater Canal

River Itchen (Hants) Nil

River Ivel NIL

Kennet & Avon Canal SM 6 Gd I 3 Gd II* 8 Gd II 74 Total 91

(inc. Kennet N and Avon N)

1021873	KENNET AND AVON CANAL, CANAL BRIDGE AT STAVERTON	II
1021876	KENNET AND AVON CANAL, AVONCLIFF AQUEDUCT	II*
1021923	KENNET AND AVON CANAL, LIMPLEY STOKE CANAL BRIDGE	II
1025059	NETHAM LOCKS, INCLUDING REMAINS OF BRIDGE	II
1033722	KENNET AND AVON CANAL, STANTON BRIDGE	II
1033730	KENNET AND AVON CANAL, LAYWOOD BRIDGE AND BLOCKHOUSE	II
1033746	KENNET AND AVON CANAL, HORTON CHAIN BRIDGE	II
1033771	BRIDGE ON KENNET AND AVON CANAL, NORTH OF TOWNEND	II
1034022	RESERVOIR OUTFALL AND SLUICES TO WILTON RESERVOIR WILTON RESERVOIR OUTFALL AND CANAL CROSSING LOCK	II
1034049	CROFTON PUMPING STATION	I
1034051	BEECH GROVE LOCK, ACCOMMODATION BRIDGE, AND APRON WIER	II
1034084	CROFTON CROSSING LOCK NO 61 AND ACCOMMODATION BRIDGE	II
1035906	WHARF HOUSE (BURBAGE)	II
1035907	CRANE ON BURBAGE WHARF	II
1115195	KENNET AND AVON CANAL CANAL BRIDGE, 100 YARDS TO EAST OF GEORGE INN	II
1035672	ACCOMMODATION BRIDGE ON KENNET AND AVON CANAL, EAST OF HONEY STREET	II
1035765	CANAL BRIDGE 200 METRES WEST OF ROAD BRIDGE	II
1035769	WOOTTON RIVERS LOCK AND ROAD BRIDGE	II
1035927	BRUCE TUNNEL, WEST TUNNEL	II
1117125	GARSTON LOCK AT SU 656708	II*
1117211	KENNET AND AVON CANAL, WIRE BRIDGE AND WIRE LOCK AT SU 363681	II
1117212	KENNET AND AVON CANAL, ORCHARD MEADOW BRIDGE AT SU 377673	II
1117230	DREWEATTS BRIDGE AND LOCK AT SU 411673	II
1117245	CANAL BRIDGE	II
1136141	HAMSTEAD BRIDGE AND HAMSTEAD LOCK AT SU 424671	II
1137009	BRIDGE OVER THE KENNET AND AVON CANAL	II
1181033	KENNET AND AVON CANAL, WINSLEY CANAL BRIDGE	II
1193314	SUSPENSION BRIDGE BY CANNINGS COTTAGE	II
1194523	BRUCE TUNNEL, EAST PORTAL	II

1210532	BRIDGE OVER CANAL AT DUN MILL	II
1211989	NEWBURY LOCK	II
1212487	KENNET AND AVON CANAL DUN MILL LOCK AT SU 352683	II
1214605	BRIDGE OVER KENNET AND AVON CANAL AT NATIONAL GRID REFERENCE ST7876 6471	II
1214606	BRIDGE OVER KENNET AND AVON CANAL AT NATIONAL GRID REFERENCE ST 7907 6421	II
1214608	CLAVERTON PUMPING STATION	II
1215193	DUNDAS AQUEDUCT	I
1215194	CRANE AT DUNDAS WHARF	II
1220347	ENBORNE BRIDGE OVER KENNET AND AVON CANAL	II
1220893	BENHAM BRIDGE ON KENNET AND AVON CANAL	II
1221070	GUYERS BRIDGE AND LOCK AT SU 455669	II
1232772	DUNDAS HORSE BRIDGE AT ST 784 626	II
1249363	PARK BRIDGE	II
1252241	SEMINGTON AQUEDUCT	II
1252431	KENNET AND AVON CANAL, KENNET LOCK, IMMEDIATELY NORTH OF TOWN BRIDGE,	II
1261986	WIDBROOK BRIDGE, TROWBRIDGE ROAD	II
1262287	KENNET AND AVON CANAL BRICKHAM BRIDGE AT SU015 621	II
1262655	THE TOWN BRIDGE	II
1263775	LONDON ROAD BRIDGE	II
1263776	WHARF BRIDGE	II
1272677	WOODBOROUGH FIELDS BRIDGE AT SU 113607	II
1272689	NEW MILL BRIDGE AT SU 184621	II
1285421	KENNET AND AVON CANAL, ACCOMMODATION BRIDGE OVER CANAL	II
1288490	BRIDGE OVER A LEAT TO SOUTH OF CLAVERTON PUMPING STATION	II
1289873	THE STONE BUILDING (KENNET AND AVON CANAL TRUST)	II
1290527	CANAL BRIDGE	II
1300317	FLUE TO CROFTON PUMPING STATION	II*
1319515	ALDERMASTON LOCK AT SU 601671	II
1319566	KENNET AND AVON CANAL, BRUNSDON BRIDGE AND BRUNSDON LOCK AT SU 372676	II
1319599	SHEFFIELD LOCK AT SU 648706	II
1364071	DUNDAS AQUEDUCT	I
1364207	AQUEDUCT OVER RIVER BISS	II
1365509	WOLFHALL FIELDS BRIDGE AND CROFTON TOP LOCK AT SU 249623	II
1365967	KENNET AND AVON CANAL, ENGLAND'S BRIDGE	II
1365980	KENNET AND AVON CANAL, CANAL BRIDGE AT THE BRIDGE INN	II
1366119	LADIES BRIDGE	II
1395310	CLEVELAND HOUSE	II*
1395658	BRIDGE	II
1395660	WESTON LOCK	II
1395943	ABBEY VIEW LOCK	II

1395950	BRIDGE ADJOINING LOWER LOCK	II
1395952	BRIDGE IN SYDNEY GARDENS	II*
1395953	CANAL BRIDGE ADJOINING ABBEY VIEW LOCK	II
1395957	FOOTBRIDGE ADJOINING TOP LOCK	II
1395959	FOOTBRIDGE ADJOINING WASH HOUSE LOCK	II
1395961	FOOTBRIDGE OVER CANAL IN SYDNEY GARDENS	II*
1395962	LOWER LOCK	II
1395963	SECOND LOCK	II
1395964	TOP LOCK	II
1395965	KENNET AND AVON CANAL TUNNEL (UNDER BECKFORD ROAD)	II*
1395966	KENNET AND AVON CANAL TUNNEL (UNDER CLEVELAND HOUSE AND SYDNEY ROAD)	II*
1395967	WASH HOUSE LOCK	II
1004693	Murhill tramway and wharf	SM
1004694	Caen Hill locks	SM
1005631	Dundas aqueduct	SM
1006970	Aldermaston Lock	SM
1006971	Monkey Marsh Lock, Kennet and Avon Canal	SM
1006972	Sheffield (or Shenfield) Lock	SM

Ketley Canal NIL

Lancaster Canal SM 3 Gd I 1 Gd II 128 132

Inc Glasson Branch
Ribble Link

1071720	FIFTH LOCK	II
1071724	LIGHTHOUSE ON EAST SIDE OF ENTRANCE TO GLASSON DOCK	II
1071757	SECOND LOCK BRIDGE	II
1071758	TOP LOCK	II
1071798	AQUEDUCT (NO.87)	II
1071803	LANCASTER CANAL MOSS BRIDGE (NUMBER 143)	II
1071807	LANCASTER CANAL YEALAND ROAD BRIDGE (NUMBER 142)	II
1071864	LANCASTER CANAL BLIND LANE BRIDGE (NUMBER 115)	II
1071867	LANCASTER CANAL KELLET LANE BRIDGE (NUMBER 130)	II
1071879	LANCASTER CANAL TEWITFIELD OLD TURNPIKE BRIDGE (NUMBER 138)	II
1071909	LANCASTER CANAL BOLTON CINDER OVENS BRIDGE, (NUMBER 125)	II
1071912	LANCASTER CANAL HODGSON'S BRIDGE (NUMBER 134)	II
1071913	LANCASTER CANAL TAYLOR'S BRIDGE (NUMBER 137)	II
1071916	LANCASTER CANAL BORWICK HALL BRIDGE (NUMBER 135)	II
1071918	LANCASTER CANAL KEER BRIDGE (AQUEDUCT) (NO.132)	II
1071922	LANCASTER CANAL THWAITE END BRIDGE (NUMBER 127	II
1071923	LANCASTER CANAL HODGSON'S BRIDGE (NUMBER 129)	II

1071940	LANCASTER CANAL BOLTON TURNPIKE BRIDGE (NUMBER 123)	II
1072029	WARD'S HOUSE BRIDGE (NUMBER 23)	II
1072030	SALWICK HALL BRIDGE (NUMBER 24)	II
1072032	MILESTONE CIRCA 20 METRES SOUTH OF SIX MILE BRIDGE	II
1072868	CANAL BRIDGE (NUMBER 63)	II
1072882	HANKINSON BRIDGE (NUMBER 40)	II
1072907	CANAL BRIDGE (NUMBER 62)	II
1072928	DOBSONS BRIDGE (NUMBER 55)	II
1072931	WYRE AQUEDUCT	II
1073099	LANCASTER CANAL, WEST PORTAL OF WHITTLE HILLS TUNNEL OF FORMER LANCASTER CANAL	II
1086527	CROOKLANDS BRIDGE OVER KENDAL LANCASTER CANAL NGR 5339 8358	II
1086532	STAINTON AQUEDUCT CARRYING KENDAL LANCASTER CANAL OVER STAINTON BECK AND PUBLIC FOOTPATH NGR5226 8542	II
1086533	STAINTON BRIDGE END BRIDGE OVER KENDAL LANCASTER CANAL NGR 5242 8526	II
1004594	EAST PORTAL TO HINCASTER TUNNEL AND ACCOMMODATION BRIDGE OVER SUNKEN HORSE PATH	II
1086577	ACCOMMODATION BRIDGE OVER SUNKEN HORSE PATH 100 YDS EAST-SOUTH-EAST OF WEST PORTAL OF HINCASTER TUNNEL	II
1086578	WEST PORTAL TO HINCASTER TUNNEL	II
1086585	LANCASTER KENDAL CANAL, SEDGWICK HILL BRIDGE OVER LANCASTER/KENDAL CANAL	II
1087285	HOLME TURNPIKE BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087286	JANSON'S BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087287	NELSON'S BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087307	DOVEHOUSES BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087308	AQUEDUCT CARRYING KENDAL/LANCASTER CANAL OVER PEASY BECK	II
1087310	BRAITHWAITE BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087311	NEW MILL AQUEDUCT ON KENDAL/LANCASTER CANAL	II
1087329	HODGSON'S BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087339	MILLNESS BRIDGE OVER KENDAL/LANCASTER CANAL	II
1087340	SEVEN MILESTONE BRIDGE OVER KENDAL/LANCASTER CANAL	II
1136839	LARKRIGG HALL BRIDGE OVER LANCASTER/KENDAL CANAL	II
1137627	DUKE'S BRIDGE OVER KENDAL/LANCASTER CANAL 170 METRES EAST NORTH EAST OF TOWNEND FARM	II
1137839	LANCASTER KENDAL CANAL,SEDGWICK AQUEDUCT, LANCASTER/KENDAL CANAL	II
1146808	LANCASTER CANAL SALTMIRE BRIDGE (NUMBER 141)	II
1163161	BYERWORTH BRIDGE (NUMBER 60)	II
1163669	LANCASTER CANAL BOLTON CHURCH BRIDGE (NUMBER 122)	II
1163796	CANAL BRIDGE (NUMBER 45)	II
1163805	HEAD NOOK BRIDGE (NUMBER 43)	II

1163825	WHITE HORSE BRIDGE (NUMBER 42)	II
1163865	CATHOUSE BRIDGE (NUMBER 64)	II
1164127	NEW BRIDGE	II
1164602	FOURTH LOCK	II
1164630	LANCASTER CANAL CANAL BRIDGE (NUMBER 131) NORTH WEST OF CAPERNWRAY OLD HALL	II
1164654	CUSTOM HOUSE GLASSON DOCK	II
1165218	LANCASTER CANAL BRIDGE NUMBER 34 WHINNYFIELD BRIDGE	II
1165945	LANCASTER CANAL FOLLY BRIDGE (NUMBER 112)	II
1165965	LANCASTER CANAL HAMMERTON HALL BRIDGE (NUMBER 111)	II
1165975	LANCASTER CANAL BELMOUNT BRIDGE	II
1165983	LANCASTER CANAL HATLEX BRIDGE (NUMBER 119)	II
1165993	LANCASTER CANAL OCCUPATION BRIDGE (NUMBER 117)	II
1166105	LANCASTER CANAL RAKES HEAD BRIDGE (NUMBER 116)	II
1166295	LANCASTER CANAL TEWITFIELD LOCKS	II
1194907	LANCASTER CANAL DOLPHINLEE BRIDGE (NUMBER 105)	II
1194908	LANCASTER CANAL NEWTON BECK CULVERT	II
1194963	LANCASTER CANAL BASIN BRIDGE (NUMBER 98)	II
1194964	LANCASTER CANAL OLD BLACKSMITHS SHOP APPROXIMATELY 30 METRES EAST OF BASIN BRIDGE	II
1194965	LANCASTER CANAL OLD BOATHOUSE ON EAST SIDE OF CANAL APPROXIMATELY 100 METRES WEST OF BASIN BRIDGE	II
1194992	BEAUMONT HALL BRIDGE (NUMBER 109)	II
1194993	HALTON ROAD BRIDGE (NUMBER 108), (THAT PART IN LANCASTER DISTRICT)	II
1204709	KENDAL/LANCASTER CANAL GARTH'S BRIDGE OVER KENDAL	II
1207242	BRIDGE NO 15 OVER LANCASTER CANAL	II
1207293	SMALL CANAL AQUEDUCT APPROXIMATELY NORTH OF CANAL BRIDGE NO 14	II
1247774	LANCASTER CANAL, EAST PORTAL OF WHITTLE HILLS TUNNEL OF FORMER LANCASTER CANAL	II
1251450	GALGATE BRIDGE (NO 86)	II
1251452	LANCASTER CANAL JUNCTION BRIDGE	II
1262777	HAY CARR BRIDGE (NO 83)	II
1262780	LANCASTER CANAL NEW PARK BRIDGE NEW PARK BRIDGE (NO 89)	II
1262781	LANCASTER CANAL SECOND LOCK	II
1270982	CANAL COTTAGE	II
1281047	HOLME WAREHOUSE BRIDGE OVER KENDAL/LANCASTER CANAL	II
1281052	HOLME PARK BRIDGE OVER KENDAL/LANCASTER CANAL	II
1290286	HAVERBREAKS BRIDGE (NUMBER 95)	II
1292153	CANAL AQUEDUCT, NUMBERED 13, SOUTH OF CANAL BRIDGE NO 14	II
1292164	BRIDGE NO 14 OVER LANCASTER CANAL	II

1298383	LANCASTER CANAL CARR LANE BRIDGE (THAT PART IN LANCASTER DISTRICT)	II
1312165	THOMPSON'S BRIDGE OVER KENDAL/LANCASTER CANAL	II
1312277	AQUEDUCT CARRYING KENDAL/LANCASTER CANAL OVER FARLETON BECK	II
1317708	SIXTH LOCK	II
1317731	BURROW BECK BRIDGE (NO.92)	II
1317881	ELLEL GRANGE BRIDGE (NO.84)	II
1317919	WILSON'S BRIDGE NUMBER 25	II
1317924	SIX MILE BRIDGE (NUMBER 27)	II
1318202	POTTERS BROOK BRIDGE (NUMBER 81)	II
1320583	CHANGE BRIDGE OVER FORMER LANCASTER-KENDAL CANAL	II
1335712	ATKINSON'S BRIDGE OVER KENDAL/LANCASTER CANAL	II
1335729	HOLME MILL BRIDGE OVER KENDAL/LANCASTER CANAL	II
1335730	SHEERNESS BRIDGE OVER KENDAL/LANCASTER CANAL	II
1336088	KENDAL LANCASTER CANAL MATTINSONS BRIDGE NGR 5248 8395 NEAR LANE FARM CROOKLANDS	II
1336094	LANCASTER KENDAL CANAL, SELLET HALL BRIDGE OVER LANCASTER/KENDAL CANAL	II
1336095	LANCASTER KENDAL CANAL, CROWPARK BRIDGE OVER LANCASTER/KENDAL CANAL	II
1336108	OLD HALL BRIDGE OVER KENDAL LANCASTER CANAL NEAR CROOKLANDS NGR 5289 8382	II
1336110	FIELD END BRIDGE OVER KENDAL LANCASTER CANAL NGR 5259 8499	II
1336111	AQUEDUCT CARRYING KENDAL LANCASTER CANAL OVER PEASEY BECK NGR 5348 8350	II
1336115	HOLLOWFORTH AQUEDUCT BRIDGE NUMBER 38	II
1361665	CANAL BRIDGE NUMBER 17 VALENTINE HOUSE BRIDGE	II
1361907	GREENHALGH CASTLE BRIDGE (NO.57)	II
1361908	TURNERS BRIDGE (NUMBER 56)	II
1361959	BROCK AQUEDUCT (NUMBER 46)	II
1362116	SUMMIT BRIDGE AT SD 586 244	II
1362147	FORMER CANAL BRIDGE	II
1362395	LANCASTER CANAL CHORLEYS BRIDGE (NUMBER 124) (TO REAR 23 MAIN ROAD)	II
1362422	LANCASTER CANAL SANDERS BRIDGE (NUMBER 136)	II
1362451	LANCASTER CANAL LUNE AQUEDUCT	I
1362453	LANCASTER CANAL HALTON ROAD BRIDGE (NUMBER 108)	II
1362470	LANCASTER CANAL WILLIAMSLANDS BRIDGE (NUMBER 113)	II
1362473	LANCASTER CANAL CANAL BRIDGE (NUMBER 118)	II
1362483	DOUBLE BRIDGE (NO.85)	II
1362527	THIRD LOCK	II
1004594	Hincaster Tunnel horse path	SM
1005091	Glasson Dock	SM
1007095	Sedgwick aqueduct	SM

R Lark Gd II 1

1343604	BRIDGE OVER THE RIVER LARK	II

Lee (& Stort) Navigation Gd II 3

inc Limehouse Cut

1101629	CRANE BASE AND SHORT LENGTH OF QUAY WALL OF STORT NAVIGATION, 20 YARDS NORTH OF ROAD NEAR BRIDGE	II
1254962	BRIDGE AT RAMMEY LOCK	II
1065128	LIMEHOUSE CUT ENTRANCE WALLS	II

Leeds & Liverpool C. SM 1 Gd I 1 GdII* 2 Gd II 196 200

inc Leigh Branch
Rufford Branch
Liverpool Canal Link

1022603	AQUEDUCT APPROXIMATELY 40 METRES OVER RIVER CALDER AT SD 8437 3225	II
1063329	ENTRANCE TO LEEDS/LIVERPOOL CANAL AT HEAD OF DOCK	II
1067319	LEEDS AND LIVERPOOL CANAL WATERHOUSE BRIDGE	II
1068427	LEEDS AND LIVERPOOL CANAL FLIGHT OF 13 LOCKS AND BRIDGES	II
1072472	CANAL BRIDGE NUMBER 73	II
1072477	CANAL BRIDGE NUMBER 72 AT SD 596 146 IDLE BRIDGE	II
1072479	WHINS BRIDGE NUMBER 83 AT SD 601 218	II
1072480	BROWN HOUSE BRIDGE NUMBER 86 AT SD 606 226	II
1072486	STONY FLAT BRIDGE (NUMBER 87) AT SD 607 227	II
1072487	MILEPOST ON TOWPATH OF LEEDS LIVERPOOL CANAL AT SD 614 238	II
1072525	TOP LOCK	II
1072619	LEEDS LIVERPOOL CANAL, CANAL AQUEDUCT OVER RIVER DOUGLAS AT SD 599 124	II
1072621	RED HOUSE BRIDGE NUMBER 68	II
1072629	CANAL BRIDGE NUMBER 77 (BAGGANLEY BRIDGE)	II
1072651	CANAL BRIDGE NUMBER 75 AT SD 595 163	II
1072702	TOTTLEWORTH BRIDGE (NUMBER 108)	II
1072720	CANAL BRIDGE (ALTHAM BRIDGE)	II
1072724	CANAL WAREHOUSE (Hyndburn)	II
1072725	CANAL BRIDGE NUMBER 111D	II
1072738	CANAL BRIDGE NUMBER 110	II
1073014	LEEDS AND LIVERPOOL CANAL EASTERN LOCK OF PAIR ON NORTHERN BYPASS CHANNEL, APPLEY LOCKS	II
1073015	LEEDS AND LIVERPOOL CANAL SOUTHERN LOCK AT APPLEY LOCKS	II
1073093	TOP LOCK BRIDGE	II
1073094	MOSS LANE BRIDGE (NUMBER 80)	II
1073107	CANAL LOCK AT SD 464 154	II
1073165	LEEDS AND LIVERPOOL CANAL BRIDGE NUMBER 40	II

1073166	LEEDS AND LIVERPOOL CANAL MILESTONE SOUTH EAST OF HAND LANE BRIDGE	II
1073360	CANAL HOUSE	II
1073361	CANAL WAREHOUSE (Foulridge)	II
1073376	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 46	II
1073377	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 47	II
1073395	LEEDS AND LIVERPOOL CANAL NORTHERN ENTRANCE TO FOULRIDGE TUNNEL	II
1073397	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 49	II
1073398	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 50	II
1073424	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 42	II
1084206	FOUR CANAL LOCKS, LEEDS AND LIVERPOOL CANAL	II
1131671	TUNNEL UNDER LEEDS AND LIVERPOOL CANAL	II
1132054	CANAL BRIDGE NUMBER 170 AND INTEGRAL LOCK	II
1132092	LEEDS AND LIVERPOOL CANAL ANCHOR LOCK	II
1132113	LEEDS AND LIVERPOOL CANAL BANK NEWTON 4TH LOCK	II
1132114	LEEDS AND LIVERPOOL CANAL BANK NEWTON 6TH LOCK	II
1132177	AQUEDUCT ON LEEDS-LIVERPOOL CANAL	II
1132245	LEEDS AND LIVERPOOL CANAL, OLD HALL BRIDGE	II
1132246	LEEDS AND LIVERPOOL CANAL, DOUBLE ARCHED BRIDGE	II
1132247	LEEDS AND LIVERPOOL CANAL, WILLIAMSON BRIDGE	II
1132248	LEEDS AND LIVERPOOL CANAL, LANGBER BRIDGE	II
1133039	LEEDS AND LIVERPOOL CANAL BRITISH WATERWAYS AUTHORITY WORKS DEPOT BUILDING BY SUMMIT OF DOBSON LOCKS	II
1133326	No name for this Entry	II
1133357	LEEDS AND LIVERPOOL CANAL SEVEN ARCHES AQUEDUCT, DOWLEY GAP	II
1133358	LEEDS AND LIVERPOOL CANAL DOWLEY GAP BRIDGE (NUMBER 206)	II
1133359	LEEDS AND LIVERPOOL CANAL TWO RISE LOCKS WITH OVERFLOW CHANNEL DOWLEY GAP	II*
1133361	LEEDS AND LIVERPOOL CANAL THREE RISE LOCKS WITH OVERFLOW CHANNEL	II*
1133530	CANAL WAREHOUSE IMMEDIATELY WEST OF NUMBER 7	II
1133548	LEEDS AND LIVERPOOL CANAL, DOWLEY GAP AQUEDUCT	II
1135099	LEEDS AND LIVERPOOL CANAL, LODGE BRIDGE	II
1135126	LEEDS AND LIVERPOOL CANAL, OWL BRIDGE	II
1162116	LEEDS AND LIVERPOOL CANAL ANDERTON BRIDGE (NO.65)	II
1163231	CANAL AQUEDUCT OVER RODDLESWORTH WATER	II
1164196	TOP LOCK HOUSE	II
1165293	WITHNELL FOLD BRIDGE (NUMBER 88) AT SD 611 231	II
1165312	OLLERTON BRIDGE NUMBER 2 (NUMBER 90) AT SD 615 240	II
1165324	MILLFIELD BRIDGE AT SD 637 248	II
1166397	AQUEDUCT ON LEEDS AND LIVERPOOL CANAL	II
1167646	LEEDS AND LIVERPOOL CANAL NEWTON BRIDGE NUMBER 164	II

1167652	LEEDS AND LIVERPOOL CANAL BANK NEWTON 1ST LOCK	II
1167657	LEEDS AND LIVERPOOL CANAL BANK NEWTON 3RD LOCK	II
1167664	LEEDS AND LIVERPOOL CANAL BANK NEWTON 5TH LOCK BRIDGE NUMBER 167	II
1167803	LEEDS AND LIVERPOOL CANAL AQUEDUCT AT PRIEST HOLME	II
1167805	LEEDS AND LIVERPOOL CANAL SCARLAND LOCK	II
1167810	LEEDS AND LIVERPOOL CANAL TOP LOCKS, LOWER LOCK TOP LOCKS, LOWER LOCK	II
1196624	CANAL AQUEDUCT	II
1204437	CANAL AQUEDUCT AT SD 596 155	II
1204509	CANAL BRIDGE NUMBER 71	II
1204630	LEEDS AND LIVERPOOL CANAL, SEVEN CANAL LOCKS SPACED ALONG 1 KILOMETRE OF LEEDS LIVERPOOL CANAL FROM TOP LOCK BRIDGE ON COPTHURST LANE AT NORTH END TO JUNCTION WITH WALTON SUMMIT BRANCH AT SOUTH END	II
1204734	FOURTH LOCK BRIDGE	II
1205921	CANAL WAREHOUSES WITH ATTACHED OFFICE AND HOUSE, ON WEST SIDE OF LEEDS-LIVERPOOL CANAL	II
1206123	CUT LANE BRIDGE (NUMBER 107)	II
1206129	CANAL BRIDGE NUMBER 106 (SIDE BEET BRIDGE)	II
1218000	BRIDGE ON THE LEEDS AND LIVERPOOL CANAL AT HEAD OF DOCK BRIDGE OVER THE LEEDS AND LIVERPOOL CANAL AND FOUR CANAL LOCKS	II
1220418	BALDWIN'S LOCK AND BRIDGE LEEDS AND LIVERPOOL	II
1221011	CANAL AQUEDUCT	II
1223116	LEEDS AND LIVERPOOL CANAL HOLLIN BRIDGE	II
1224845	LEEDS AND LIVERPOOL CANAL AQUEDUCT OVER HAINSWORTH ROAD AND SILSDEN BECK	II
1228325	LEEDS AND LIVERPOOL CANAL BRITANNIA BRIDGE LEEDS AND LIVERPOOL CANAL FLIGHT OF 7 LOCKS AND BRIDGE	II
1228422	LEEDS AND LIVERPOOL CANAL LOCK TO SOUTH EAST OF POOLSTOCK LANE	II
1228437	LEEDS AND LIVERPOOL CANAL DEAN LOCKS	II
1228454	GATHURST BRIDGE	II
1230902	LEEDS AND LIVERPOOL CANAL MILESTONE NORTH OF RIMMER'S BRIDGE	II
1230998	LEEDS AND LIVERPOOL CANAL MILESTONE NORTH OF HARKER'S BRIDGE	II
1231024	LEEDS AND LIVERPOOL CANAL MILESTONE WEST OF CHAPEL HOUSE BRIDGE	II
1231025	LEEDS AND LIVERPOOL CANAL HAND LANE BRIDGE (NUMBER 41)	II
1231026	LEEDS AND LIVERPOOL CANAL WESTERN LOCK OF PAIR ON NORTHERN BYPASS CHANNEL, APPLEY LOCKS	II
1237624	CANAL BRIDGE NUMBER 121	II
1239157	IRON STRUCTURE AT EAST END OF WAREHOUSES WEST OF NAVIGATION BRIDGE ON BRIDGE	II
1239435	CANAL HOUSE	II
1239471	A, B, C, D AND E WAREHOUSES OF ENTWISTLE AND ODDY LIMITED	II
1243118	LEEDS AND LIVERPOOL CANAL CANAL BRIDGE NUMBER 138	II

1244802	BRITISH WATERWAYS BURNLEY OPERATIONS BASE	II
1244803	FORMER FORGE TO EAST OF BRITISH WATERWAYS BURNLEY OPERATIONS BASE	II
1244804	FINSLEY GATE Canal House (British Waterways Board))	II
1244891	WHARF MASTERS HOUSE AND TOLL OFFICE AT MANCHESTER ROAD CANAL WHARF	II
1244899	BOUNDARY WALL TO MANCHESTER ROAD CANAL WHARF	II
1244977	SANDYGATE CANAL BRIDGE	II
1245001	SANDY HOLME AQUEDUCT IN THOMPSON PARK	II
1255608	BRIDGE 223 OVER LEEDS AND LIVERPOOL CANAL	II
1255693	FORMER CANAL COMPANY OFFICE, LOCK KEEPERS HOUSE AND ATTACHED WALL AND RAILINGS	II
1255704	BASIN LOCK TO WEST OF BRIDGE 226 ON LEEDS AND LIVERPOOL CANAL	II
1255705	CRANE ON EAST SIDE OF LEEDS AND LIVERPOOL CANAL BASIN, CANAL WHARF	II
1255706	CRANE ON SOUTH SIDE OF LEEDS AND LIVERPOOL CANAL	II
1255707	RIVER LOCK AND RETAINING WALLS TO RIVER AIRE	II
1255711	RETAINING WALLS TO CANAL FROM LOCK NUMBER 1 TO BRIDGE 226 INCLUDING 2 GRAVING DOCKS	II
1255719	ODDYS LOCKS	II
1255722	SPRING GARDENS LOCK	II
1255723	ST ANNS ING LOCK	II
1255731	BRIDGE 225 ON LEEDS AND LIVERPOOL CANAL AND GATE PIERS AND RETAINING WALLS	II
1255813	BROAD LANE CANAL BRIDGE (BRIDGE 222)	II
1256165	REDCOTE CANAL BRIDGE (BRIDGE 224)	II
1258894	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 44	II
1259048	LEEDS AND LIVERPOOL CANAL SWINDEN AQUEDUCT	II
1267539	LEEDS AND LIVERPOOL CANAL EWOOD AQUEDUCT	II
1268287	LEEDS AND LIVERPOOL CANAL FARNHILL BRIDGE 183A AT SE0020 4663	II
1268289	CANAL WAREHOUSE (Bankhall Street Liverpool)	II
1268488	LEEDS AND LIVERPOOL CANAL, AQUEDUCT OVER MORTON BECK AT SE1003 4120 (THAT PART WHICH LIES IN KEIGHLEY)	II
1268513	LEEDS AND LIVERPOOL CANAL, AQUEDUCT OVER MORTON BECK AT SE1003 4120 (THAT PART WHICH LIES IN BINGLEY)	II
1269144	LEEDS AND LIVERPOOL CANAL, FIELD 3 RISE LOCK 16 18 AT SE180 398	II
1272779	LEEDS AND LIVERPOOL CANAL HALTERS BRIDGE NUMBER 150	II
1272914	LEEDS AND LIVERPOOL CANAL DAUBERS BRIDGE NUMBER 147	II
1272916	LEEDS AND LIVERPOOL CANAL MILL HILL BRIDGE NUMBER 149	II
1273005	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 45	II
1273237	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 43	II
1273859	BRITISH WATERWAYS OFFICE	II
1274433	CANAL BRIDGE (KNOTTS BRIDGE)	II
1280438	CANAL BRIDGE NUMBER 111	II

1280492	CHURCH KIRK BRIDGE NUMBER 112	II
1280750	LEIGH BRIDGE	II
1281534	WAVE WALL, WATER LADDER, AND ATTACHED BUILDINGS	II
1287340	RED ROCK BRIDGE	II
1287377	PENDLEBURY BRIDGE	II
1296723	LEEDS AND LIVERPOOL CANAL AQUEDUCT AT HOLME BRIDGE	II
1297511	JUNCTION BRIDGE CANAL BASIN AND FORMER DRY DOCK, TOP LOCKS (THAT PART IN LATHOM) LEEDS AND LIVERPOOL CANAL JUNCTION BRIDGE CANAL BASIN AND FORMER DRY DOCK, TOP LOCKS (THAT PART IN BURSCOUGH)	II
1297531	LEEDS AND LIVERPOOL CANAL TOP LOCKS, UPPER LOCK (THAT PART IN BURSCOUGH) TOP LOCKS, UPPER LOCK (THAT PART IN LATHOM)	II
1297537	LEEDS AND LIVERPOOL CANAL NERBURGH AQUEDUCT (THAT PART IN NEWBURGH)	II
1297542	GERMAN'S LOCK AND BRIDGE (THAT PART IN BURSCOUGH) LEEDS AND LIVERPOOL CANAL GERMAN'S LOCK AND BRIDGE (THAT PART IN LATHOM)	II
1300630	SWINE LANE BRIDGE	II
1313399	4 LIME KILNS IN WALL ATTACHED TO CANAL EMBANKMENT TO REAR OF NUMBER 38	II
1314199	LEEDS AND LIVERPOOL CANAL, CANAL BRIDGE NUMBER 208 200 METRES WEST OF JUNCTION WITH DOCK LANE	II
1314200	LEEDS AND LIVERPOOL CANAL, HIRST LOCK, EAST OF JUNCTION WITH HIRST LANE	II
1314303	LEEDS AND LIVERPOOL CANAL FIVE RISE LOCKS WITH OVERFLOW CHANNEL	I
1314478	LEEDS AND LIVERPOOL CANAL RETAINING WALLS, GATES AND SHOOT OF DOBSON LOCKS	II
1316773	LEEDS AND LIVERPOOL CANAL, SOUTH FIELD BRIDGE	II
1316828	LEEDS AND LIVERPOOL CANAL STEG NECK LOCK AND BRIDGE NUMBER 169	II
1316984	NEW BRIDGE	II
1356315	BOUNDARY BRIDGE	II
1356780	LEEDS AND LIVERPOOL CANAL AQUEDUCT OVER RIVER DOUGLAS	II
1356781	LEEDS AND LIVERPOOL CANAL ABERDEEN BRIDGE (NO.66)	II
1361701	LEEDS AND LIVERPOOL CANAL COCKSHOTT BRIDGE	II
1361712	LEEDS AND LIVERPOOL CANAL SWINDEN BRIDGE NUMBER 142	II
1361715	LEEDS AND LIVERPOOL CANAL SOUTHERN ENTRANCE TO FOULRIDGE TUNNEL	II
1361723	LEEDS AND LIVERPOOL CANAL HOLLINHURST BRIDGE NUMBER 148	II
1361724	LEEDS AND LIVERPOOL CANAL LOCK NUMBER 48	II
1361740	LEEDS AND LIVERPOOL CANAL AQUEDUCT OVER WANLESS BECK	II
1361834	LEEDS AND LIVERPOOL CANAL MILESTONE APPROXIMATELY 350 METRES SOUTH OF HASKAYNE BRIDGE	II
1361840	HILL BRIDGE (NUMBER 24) LEEDS AND LIVERPOOL CANAL HILL BRIDGE (NUMBER 24)	II
1361843	CHAPEL LANE BRIDGE (NUMBER 39) LEEDS AND LIVERPOOL CANAL CHAPEL LANE BRIDGE (NUMBER 39)	II
1361847	LOCK KEEPERS OFFICE	II
1362002	STABLE BLOCK ON EAST SIDE OF LEEDS-LIVERPOOL CANAL OPPOSITE CANAL	

	COMPANY WAREHOUSES	II
1362064	RIGSHAW BRIDGE NUMBER 70	II
1362075	CANAL BRIDGE NUMBER 76	II
1362148	ENGINE BRIDGE NUMBER 84 AT SD 601 221	II
1362149	MILEPOST ON TOWPATH OF LEEDS LIVERPOOL CANAL AT SD 604 225	II
1362153	OLLERTON BRIDGE NUMBER 3 (NUMBER 89) AT SD 613 237	II
1362154	OLLERTON BRIDGE NUMBER 1 (NUMBER 91) AT SD 617 242	II
1362194	LIVESEY HALL BRIDGE, NUMBER 92	II
1375086	FORGE LOCKS	II
1375087	KIRKSTALL LOCK	II
1375088	NEWLAY LOCKS	II
1375480	BRIDGE 221 OVER THE LEEDS AND LIVERPOOL CANAL	II
1380074	LOCK NUMBER 21 ON LEEDS-LIVERPOOL CANAL	II
1380075	LOCK 23 ON LEEDS AND LIVERPOOL CANAL	II
1384507	POTTERY BRIDGE	II
1384555	BRIDGE WAREHOUSE AT EAST END OF LEEDS-LIVERPOOL CANAL BASIN	II
1384564	LOCK NUMBER 21 ON LEEDS-LIVERPOOL CANAL	
1016943	Remains of Aspen Colliery, associated beehive coking ovens and canal basin	SM

Leominster Canal Gd II 3

1383584	REA AQUEDUCT AT NGR SO 6511 7030 (THAT PART IN NEEN SOLLARS CP)	II
1383588	WHARF HOUSE (Southnet)	II
1383773	TEME AQUEDUCT AT NGR SO 5368 6878 (THAT PART IN RICHARDS CASTLE CP)	II

Leven Canal Gd II 1

1160616	AQUEDUCT AT SANDHOLME FARM	II

Liskeard & Looe C. Gd II 1

1329293	Terras Pill Bridge	II

Llangollen Canal (English Section) see Shrops Union

Louth Nav. Gd II 9

1063048	TICKLEPENNY LOCK TF 351889	II
1063049	WILLOWS LOCK TF 352892	II
1063080	ALVINGHAM LOCK AND INVERTED SYPHON TF 365909	II
1063081	SALTER FEN LOCK TF 356902	II
1063112	WAREHOUSE	II
1078197	BAINES FLOUR MILL	II
1168140	WAREHOUSE AT THORESBY BRIDGE	II
1240242	Navigation Warehouse	II
1261127	Jacksons Warehouse formerly known as Seymour and Castle Warehouse	II

Lydney Canal (inc Pidcock's C.) SM 1 Gd II 1

1338556	SWING BRIDGE OVER NAAS HARBOUR OPPOSITE CORNER OF NAAS LANE	II
1002079	Lydney Harbour	SM

Macclesfield Canal Gd II 116

1034379	CANAL BRIDGE NUMBER 25	II
1034402	CANAL BRIDGE NUMBER 21	II
1038594	MACCLESFIELD CANAL RED BULL AQUEDUCT	II
1067617	MACCLESFIELD CANAL DISTANCE MARKER AT SJ 8350 5673	II
1117079	BRIDGE NUMBER 12 OVER HIGH LANE ARM AT SJ 9502 8519 ON MACCLESFIELD CANAL	II
1117080	MILESTONE AT SJ 9566 8694 ON MACCLESFIELD CANAL	II
1130448	MACCLESFIELD CANAL MORLEY DRIVE, BRIDGE NUMBER 74	II
1130449	MACCLESFIELD CANAL CANAL ROAD AQUEDUCT	II
1135919	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 5 AND LOCK POUND	II
1135925	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 7 AND LOCK POUND	II
1135940	MACCLESFIELD CANAL DANE AQUEDUCT	II
1136317	CANAL AQUEDUCT OVER GRIMSHAW LANE	II
1136400	CANAL AQUEDUCT OVER PALMERSTON STREET	II
1136470	MACCLESFIELD CANAL DRYDOCK ON MACCLESFIELD CANAL AT SJ 9314 7678	II
1136511	SLUICES, WEIR AND CULVERT CARRYING SHORES CLOUGH UNDER MACCLESFIELD CANAL	II
1138708	CANAL BRIDGE NO 86	II
1138710	CANAL BRIDGE NO 89	II
1138712	CANAL MILEPOST	II
1138733	CANAL BRIDGE NO 84	II
1138734	CANAL BRIDGE NO 85	II
1138742	CANAL BRIDGE NO 80	II
1138863	CANAL BRIDGE NUMBER 22, 200 METRES NORTH WEST OF CLARK GREEN FARMHOUSE	II
1138864	CANAL BRIDGE NUMBER 23, 250 METRES WEST OF WINTERFORD FARM	II
1138891	MILESTONE ON TOWPATH SOUTH OF CANAL BRIDGE NUMBER 25	II
1138905	VALVE HOUSE IN RESERVOIR DAM	II
1138911	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 2 AND LOCK POUND	II
1138913	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 9 AND LOCK POUND	II
1138914	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 11 AND LOCK POUND	II
1138961	CANAL BRIDGE NUMBER 29	II
1138974	CANAL BRIDGE NUMBER 28 BY BEEHIVE COTTAGE	II
1138977	CANAL BRIDGE NUMBER 33	II
1139473	CANAL BRIDGE NO 44 ON THE MACCLESFIELD CANAL	II
1139475	GURNETT AQUEDUCT	II
1159472	CANAL BRIDGE NO 46	II

1159550	CANAL BRIDGE NO 45	II
1161757	RED BULL AQUEDUCT	II
1161904	CANAL BRIDGE NO 79	II
1161909	BRIDGE NO 81	II
1188456	MACCLESFIELD CANAL POOL LOCK AQUEDUCT AND FOOTBRIDGE	II
1206925	MACCLESFIELD CANAL BRIDGE NUMBER 33 AT SJ 929 747	II
1206926	MACCLESFIELD CANAL, BRIDGE NUMBER 35 AT SJ 929 740	II
1206927	MACCLESFIELD CANAL, BRIDGE NUMBER 40 AT WINDMILL LANE	II
1206928	MACCLESFIELD CANAL, BRIDGE NUMBER 44 AT BULLOCKS LANE, SJ 923 715	II
1214274	MACCLESFIELD CANAL CANAL MILESTONE AT SJ 9063 6721	II
1220010	MACCLESFIELD CANAL, MILESTONE AT SJ 929 747, TO SOUTH OF BRIDGE NUMBER 33	II
1220052	MACCLESFIELD CANAL BRIDGE NUMBER 39 AT SJ 9251 7305	II
1220070	MACCLESFIELD CANAL, MILESTONE AT SJ 924 719, SOUTH OF BRIDGE NUMBER 43	II
1227627	MACCLESFIELD BRIDGE ON AVENUE ROAD AXIS INCLUDING NORTH GATE	II
1232307	CANAL BRIDGE NUMBER 14 CARRIES TRACK TO RED LEGG FARM	II
1234322	CANAL BRIDGE NUMBER 20	II
1234326	CANAL BRIDGE NUMBER 26	II
1236432	MACCLESFIELD CANAL CANAL MILESTONE AT SJ 9274 7631	II
1236435	MACCLESFIELD CANAL CANAL MILESTONE AT SJ 9305 7763	II
1237530	MACCLESFIELD CANAL MORRIS BRIDGE, BRIDGE NUMBER 76	II
1237531	MACCLESFIELD CANAL LAMBERT'S LANE BRIDGE NUMBER 77	II
1237534	MACCLESFIELD CANAL BRIDGE NUMBER 66 AT SJ 8756 6435	II
1237538	MACCLESFIELD CANAL BRIDGE NUMBER 64 AT SJ 8811 6495	II
1237539	MACCLESFIELD CANAL DISTANCE MARKER AT SJ 8762 6418	II
1237540	CANAL MILESTONE CANAL MILESTONE AT SJ 8775 6378	II
1237541	MACCLESFIELD CANAL BRIDGE NUMBER 70 AT SJ 8795 6321	II
1237542	MACCLESFIELD CANAL BRIDGE NUMBER 69 AT SJ 8780 6358	II
1237543	MACCLESFIELD CANAL COMPANY BRIDGE NUMBER 63 AT SJ 8854 6521	II
1237544	MACCLESFIELD CANAL MILESTONE AT SJ 8965 6517	II
1237545	MACCLESFIELD CANAL BRIDGE NUMBER 57 AT SJ 9051 6518	II
1237546	MACCLESFIELD CANAL BRIDGE NUMBER 62 AT SJ 8895 6515	II
1237547	MACCLESFIELD CANAL DISTANCE MARKER AT SJ 8885 6520	II
1237548	MACCLESFIELD CANAL BRIDGE NUMBER 61 AT SJ 8899 6512	II
1237564	MACCLESFIELD CANAL BRIDGE NUMBER 67 AT SJ 8763 6413	II
1237568	MACCLESFIELD CANAL CANAL MILESTONE AT SJ 8815 6500	II
1237570	MACCLESFIELD CANAL BIDDULPH VALLEY AQUEDUCT AT SJ 8801 6245	II
1237583	MACCLESFIELD CANAL BRIDGE NUMBER 59 AT SJ 8987 6522	II
1237585	MACCLESFIELD CANAL BRIDGE NUMBER 58 AT SJ 9024 6514	II
1237975	MACCLESFIELD CANAL DISTANCE MARKER AT SJ 9325 7824	II
1254219	MACCLESFIELD CANAL, BRIDGE NUMBER 52 AT SJ 9074 6800	II

1254220	MACCLESFIELD CANAL, MILESTONE AT SJ 9116 6861	II
1254221	MACCLESFIELD CANAL BRIDGE NUMBER 50 AT SJ 9820 6864	II
1260144	NUMBER 7 (HYDE ROAD FOOTBRIDGE) ON MACCLESFIELD CANAL	II
1260182	NUMBER 4 (SHEPLEY'S BRIDGE) ON MACCLESFIELD CANAL	II
1260188	No name for this Entry	II
1260190	NUMBER 1 (JUNCTION BRIDGE) ON MACCLESFIELD CANAL	II
1261418	MACCLESFIELD CANAL, MILESTONE AT SJ 9151 6980	II
1261420	MACCLESFIELD CANAL, BOSLEY LOCK NUMBER 6 AND LOCK POUND AT SJ 9049 6607	II
1264029	MACCLESFIELD CANAL BRIDGE NUMBER 60 AT SJ 8927 6506	II
1264053	MACCLESFIELD CANAL CANAL MILESTONE AT SJ 8782 6233	II
1264054	MACCLESFIELD CANAL BRIDGE NUMBER 72 AT SJ 8809 6266	II
1276163	CANAL BRIDGE NUMBER 18	II
1277152	CANAL AQUEDUCT OVER SHRIGLEY ROAD	II
1277239	BRIDGE NUMBER 18 OVER CANAL, NORTH OF MITCHELFOLD	II
1279969	MACCLESFIELD CANAL, BRIDGE NUMBER 38	II
1279970	MACCLESFIELD CANAL, BRIDGE NUMBER 43 AT SJ 924 719	II
1291161	MACCLESFIELD CANAL, BRIDGE NUMBER 41 AT RICHMOND HILL	II
1291187	MACCLESFIELD CANAL, BRIDGE NUMBER 36 AT SJ 9269 7372	II
1312816	CANAL BRIDGE NUMBER 27	II
1313034	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 3 AND LOCK POUND	II
1313044	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 10 AND LOCK POUND	II
1313054	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 1 AND SPILLWAY	II
1329933	DISTANCE STONE ON TOWPATH 20 METRES NORTH OF CANAL AQUEDUCT	II
1329954	ROAD BRIDGE 20 METRES SOUTH SOUTH WEST OF REED BRIDGE	II
1329982	MACCLESFIELD CANAL BRIDGE NUMBER 53	II
1329983	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 8 AND LOCK POUND	II
1329985	MACCLESFIELD CANAL BOSLEY LOCK NUMBER 12 AND LOCK POUND	II
1330040	AQUEDUCT OVER WATERY LANE	II
1330050	POOL LOCK AQUEDUCT	II
1356654	MACCLESFIELD CANAL MILESTONE AT SJ 8535 6028	II
1356655	MACCLESFIELD CANAL MILESTONE AT SJ 8405 5775	II
1366186	CANAL BRIDGE NUMBER 19	II
1390920	TUNNEL UNDER MACCLESFIELD CANAL	II

Man. Bolton & Bury C. Gd II 8

inc Fletchers Canal

1067303	MANCHESTER BOLTON AND BURY CANAL MILESTONE 230 METRES NORTH OF PRESTOLEE ROAD	II
1067304	MANCHESTER BOLTON AND BURY CANAL MILESTONE 220 METRES SOUTH EAST OF HALL LANE	II

1162420	MANCHESTER, BOLTON AND BURY CANAL AQUEDUCT OVER RIVER IRWELL	II
1162509	MANCHESTER BOLTON AND BURY CANAL MILESTONE 60 METRES EAST OF PRESTOLEE ROAD	II
1162519	MANCHESTER BOLTON AND BURY CANAL MILESTONE APPROXIMATELY 600 METRES SOUTH EAST OF HALL LANE	II
1162680	CLIFTON AQUEDUCT MANCHESTER BOLTON AND BURY CANAL CLIFTON AQUEDUCT, THAT PART IN SWINTON AND PENDLEBURY	II
1242921	MOUNT SION STEAM CRANE, ADJACENT THE MANCHESTER BOLTON AND BURY CANAL	II
1309598	MANCHESTER BOLTON AND BURY CANAL POST APPROXIMATELY 220 METRES EAST OF HALL LANE, OPPOSITE MILESTONE	II

Man & Salford Jcn C Gd II 1

1405199	Manchester & Salford Junction Canal Tunnel	II

Manchester Ship Canal Gd II* 2 Gd II 5 7

(see also Bridgwater)

1135930	MOORE LANE BRIDGE (OVER MANCHESTER SHIP CANAL)	II
1138825	MANCHESTER SHIP CANAL MAGAZINE BUILDING, INCE BANKS	II
1162870	BARTON BRIDGE, BARTON AQUEDUCT AND CONTROL TOWER (THAT PART IN ECCLES)	II*
1330358	MOORE LANE BRIDGE	II
1356520	TRAFFORD ROAD BRIDGE THAT PART IN STRETFORD	II
1356522	BARTON BRIDGE, BARTON AQUEDUCT AND CONTROL TOWER (IN DAVYHULME)	II*
1386184	TRAFFORD ROAD BRIDGE	II

Market Weighton Canal SM 1 Gd II 1 2

1031829	WEIGHTON LOCK	II
1084113	WAREHOUSE TO THE SOUTH OF RIVER HEAD FARM	Ii
1005217	Weighton Lock, Blacktoft	SM

Melton Mowbray Nav Gd II 2

1265072	CANAL BRIDGE (OVER FORMER MELTON CANAL)	II
1360860	MILL LOCK AND BRIDGE	II

River Medway (upper) NIL

Montgomery Canal see Shropshire Union

River Nene Gd II* 2

1126812	FERRY BRIDGE	II*
1164536	CROSS KEYS BRIDGE (FORMERLY INCLUDING HYDRAULIC ENGINE HOUSE)	II*
1040327	THRAPSTON BRIDGE AND ATTACHED CAUSEWAY	II

Newdigate Canals NIL

Newport Pagnell C. NIL

North Walsham & Dilham Gd II 2

1204308	BRADFIELD BRIDGE	II
1049148	BACTON WOOD MILL (Bridge)	II

Nottingham & Beeston C. Gd II 9

(mostly abandoned)

1247915	EREWASH BRIDGE	II
1247934	MEADOW ROAD BRIDGE	II
1247963	TOWPATH FOOTBRIDGE	II
1248226	NOTTINGHAM CANAL SWANCAR BRIDGE	II
1248333	NOTTINGHAM CANAL SWANSEA BRIDGE	II
1254711	TURNOVER BRIDGE ON NOTTINGHAM CANAL	II
1254787	BRIDGE OVER CANAL	II
1255261	BRITISH WATERWAYS WAREHOUSE TO REAR OF NUMBERS 17 TO 23	II
1271432	FELLOWS, MORTON AND CLAYTON PUBLIC HOUSE	II

Nutbrook Canal Gd II 1

1158460	COLLIERY ROAD BRIDGE TO SOUTHERN END OF SHIPLEY RESERVOIR AT SK 446 438	II

Oakham Canal Gd II 1

1073194	STABLE BLOCK, LODGE AND GATE PIERS AT THE WHARF	II

R Ouse (upper) Sussex Gd II 1

1393389	SWING BRIDGE OVER RIVER OUSE	II

R. Ouse Yorks (& cuts) Gd II 8

(inc Ure Nav. & Ripon C.)

1149380	FORMER CANAL WAREHOUSE AND THE WHARF MANAGER'S HOUSE	II
1151005	LINTON LOCK	II
1167224	BANQUETING HOUSE	II
1173807	LOCK HOUSE (Ripon)	II
1293712	WEIR AND SALMON LADDER	II
1295945	CREETS BRIDGE	II
1315863	BORRAGE BRIDGE	II
1316289	NABURN LOCK OLD AND NEW LOCK	II

1024405	OXFORD CANAL CANAL BRIDGE NUMBER 133	II
1024419	OXFORD CANAL, CANAL BRIDGE NUMBER 122	II
1024420	OXFORD CANAL BRIDGE NUMBER 125	II
1024442	NAPTON BOTTOM LOCK, OXFORD CANAL	II
1024443	CANAL BUILDINGS, NAPTON BOTTOM LOCK, OXFORD CANAL	II
1034888	OXFORD CANAL CANAL BRIDGE NO 11	II
1046362	TILTING BRIDGE APPROXIMATLEY 400 METRES NORTH OF TWYFORD ROAD CANAL BRIDGE OXFORD CANAL	II
1046363	CANAL BUILDING APPROXIMATELY 10 METRES WEST OF KING'S SUTTON LOCK	II
1046364	TILTING BRIDGE APPROXIMATELY 250 METRES SOUTH OF KING'S SUTTON LOCK	II
1046365	TILTING BRIDGE APPROXIMATELY 150 METRES NORTH OF NELL BRIDGE (NOT INCLUDED) OXFORD CANAL	II
1046505	OXFORD CANAL BRIDGE APPROXIMATELY 300 METRES SOUTH WEST OF PIGEONS LOCK PINSEY BRIDGE	II
1046560	OXFORD CANAL TILTING BRIDGE APPROX 300M SOUTH EAST OF DUKE'S CUT	II
1046561	OXFORD CANAL TILTING BRIDGE 650 METRES SOUTH EAST OF DUKE'S CUT	II
1046592	OXFORD CANAL BRIDGE NUMBER 234	II
1046593	OXFORD CANAL BRIDGE NUMBER 237	II
1046594	OXFORD CANAL ROAD BRIDGE (240)	II
1066590	SOMERTON LOCK	II
1066592	BRIDGE AT SOMERTON LOCK	II
1046618	ST PETERS COLLEGE, MASTER LODGE (Canal House)	II*
1076457	OXFORD CANAL BRIDGE NUMBER 95	II
1116392	OXFORD CANAL,CANAL BRIDGE NO 97 AT SP5250 6549	II
1116536	OXFORD CANAL CANAL BRIDGE NUMBER 132	II
1184398	ROVING BRIDGE AT SP 4353 5234, OXFORD CANAL	II
1184763	OXFORD CANAL BRIDGE NUMBER 236 (WOLVERCOTE GREEN)	II
1184772	OXFORD CANAL BRIDGE NUMBER 238	II
1185494	CANAL BRIDGE NUMBER 113 OXFORD CANAL	II
1185651	OXFORD CANAL CANAL BRIDGE NUMBER 115	II
1192665	OXFORD CANAL TILTING BRIDGE APPROXIMATELY 600 METRES NORTH OF DUKE'S CUT	II
1193078	BRIDGE OVER OXFORD CANAL AT SP 4985 3148	II
1200121	TILTING BRIDGE APPROXIMATELY 800 METRES NORTH OF TWYFORD ROAD CANAL BRIDGE OXFORD CANAL	II
1200132	BRIDGE AT KINGS SUTTON LOCK OXFORD CANAL	II
1200139	TILTING BRIDGE APPROXIMATELY 1.1 KILOMETRES NORTH OF NELL BRIDGE LOCK (NOT INCLUDED) OXFORD CANAL	II
1200261	OXFORD CANAL BRIDGE AT DASHWOOD LOCK	II
1200266	OXFORD CANAL BRIDGE AT PIGEONS LOCK	II
1211261	SHIPTON LIFT BRIDGE (219) SP 4850 1675, OXFORD CANAL	II

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1215874	FIELD BRIDGE NUMBER 155 OVER OXFORD CANAL	II
1215875	FIELD BRIDGE NUMBER 157 OVER OXFORD CANAL	II
1215892	LOCK IMMEDIATELY TO NORTH OF BRIDGE NUMBER 146 AT SP 4664 4970	II
1215934	FIELD BRIDGE NUMBER 156 OVER OXFORD CANAL	II
1215937	BOURTON LOCK OXFORD CANAL	II
1216144	FIELD BRIDGE NUMBER 145, OVER OXFORD CANAL	II
1216170	ELKINGTON LOCK OXFORD CANAL	II
1216171	FIELD BRIDGE NUMBER 149 OVER OXFORD CANAL	II
1220542	BRIDGE 227, OXFORD CANAL	II
1225638	BRIDGE 400 METRES NORTH OF DASHWOOD LOCK	II
1226118	BRIDGE APPROXIMATELY 500 METRES NORTH OF ALLEN'S LOCK (NOT INCLUDED)	II
1226360	ANYHO WEIR BRIDGE NUMBER 188, AT SP 494337 OXFORD CANAL	II
1226361	BELCHERS LIFT BRIDGE NUMBER 189, AT SP 495 329 OXFORD CANAL	II
1233660	OXFORD CANAL, NEWBOLD TUNNEL NORTH PORTAL	II
1233718	OXFORD CANAL, FENNIS FIELD BRIDGE AT SP 462 785	II
1248369	GRANT'S LOCK, OXFORD CANAL	II
1249079	FOXES LIFT BRIDGE (171) AT SP 470 389 OXFORD CANAL	II
1249969	RUGBY ARM BRIDGE (NUMBER 53) AT SP 502 770	II
1249970	RUGBY AQUEDUCT	II
1249971	NEWBOLD TUNNEL SOUTH PORTAL	II
1253432	OXFORD CANAL, WHARF HOUSE	II
1266243	BRIDGE AT JUNCTION WITH STATION ROAD, PLUS APPROACH WALLS	II
1266244	BRIDGE 1.7 KILOMETRES NORTH OF DASHWOOD LOCK	II
1276482	OXFORD CANAL, MORGANS BRIDGE AT SP 442 799	II
1276494	OXFORD CANAL, NEWBOLD ARM BRIDGE AT SP 481 778	II
1277612	HADDONS LIFT BRIDGE (173) AT SP 476 385 OXFORD CANAL	II
1277942	GRANT'S LOCK BRIDGE OVER OXFORD CANAL	II
1286500	OXFORD CANAL TOWPATH BRIDGE AT DUKE'S CUT LOCK	II
1287687	FIELD BRIDGE NUMBER 148 OVER OXFORD CANAL	II
1287882	FIELD BRIDGE NUMBER 146 OVER OXFORD CANAL	II
1290142	BRIDGE 228, OXFORD CANAL	II
1290453	BRIDGE AT SHIPTON WEIR LOCK, OXFORD CANAL	II
1290953	OXFORD CANAL KIDLINGTON GREEN LOCK	II
1291166	CANAL BRIDGE APPROXIMATELY 60 METRES WEST OF THE ROCK OF GIBRALTAR PUBLIC HOUSE	II
1299976	OXFORD CANAL ROVING BRIDGE (243) AT ISIS LOCK	II
1300862	OXFORD CANAL TILTING BRIDGE APPROX 750 METRES SOUTH OF PIGEONS LOCK	II
1300907	TWYFORD ROAD CANAL BRIDGE OXFORD CANAL	II
1300910	LOCK KEEPERS COTTAGE AT KING'S SUTTON LOCK OXFORD CANAL	II
1355461	OXFORD CANAL BOUNDARY LIFT BRIDGE (141) AT SP 452 512	II
1355539	CANAL BRIDGE NUMBER 136 OXFORD CANAL	II

1357139	SOMERTON LOCK COTTAGE	II
1365031	OLD CANAL TUNNEL ARCH	II
1365056	ROVING BRIDGE OVER OXFORD CANAL	II
1366581	OXFORD CANAL AQUEDUCT NUMBER 96	II
1369563	OXFORD CANAL HAYNES LIFT BRIDGE (170) AT SP 469 391	II
1369697	OXFORD CANAL BRIDGE NUMBER 235 (GODSTOW ROAD BRIDGE)	II
1369698	OXFORD CANAL ROAD BRIDGE (242)	II
1369771	OXFORD CANAL NORTHBROOK BRIDGE (THAT PART IN KIRTLINGTON CIVIL PARISH)	II
1369802	OXFORD CANAL CHISNELL LIFT BRIDGE (193) AT SP 497 304	II
1369819	KINGS SUTTON LOCK OXFORD CANAL	II
1369820	TILTING BRIDGE 700 METRES SOUTH OF KING'S SUTTON LOCK OXFORD CANAL	II
1370051	OXFORD CANAL DUKE'S CUT LOCK	II
1393797	HILLMORTON BOTTOM LOCK (LOCKS 2 AND 3), FORMER OXFORD CANAL	II
1006323	Tooley's boatyard	SM

Par Canal NIL

R. Parret incWestport C. Gd II* 1 Gd II 9 10

1056911	TIMBER STORE AT FORMER CANAL BASIN, NOW IN GROUNDS OF LAUREL COTTAGE	II
1222018	PAIR OF CANAL WORKERS' COTTAGES AT ENTRANCE TO FORMER CANAL BASIN	II
1236420	CANAL BRIDGE AT NGR ST 3878 2015	II
1236448	WAREHOUSE ON QUAYSIDE AT FORMER CANAL BASIN, NOW LAUREL COTTAGE	II
1249486	BRIDGE OVER FORMER WESTPORT CANAL AT NGR ST 38090 2030	II
1277510	GREAT BOW BRIDGE (THAT PORTION IN CURRY RIVEL CP), BOW STREET	II
1297139	RAIL BRIDGE OVER THE RIVER PARRETT, WEST QUAY	II*
1344608	BURROW BRIDGE AT NGR ST 3075 3043	II
1345913	MIDELNEY BRIDGE ON ROAD TO MIDELNEY MANOR, OVER FORMER WESTPORT CANAL	II
1345946	CANAL BRIDGE AT ENTRANCE TO FORMER CANAL BASIN	II

Peak Forest Canal SM 2 Gd I 1 Gd II* 1 Gd II 47 51

1068000	PEAK FOREST CANAL AQUEDUCT OVER THE RIVER TAME (IN ASHTON UNDER LYNE)	II
1068045	PEAK FOREST CANAL, WOOD END CANAL BRIDGE	II
1088035	BUXWORTH CANAL BASIN. WHARFINGER'S HOUSE AND OFFICE	II
1088081	CANAL WAREHOUSE AT END OF PEAK FOREST CANAL	II*
1088086	PEAK FOREST CANAL AQUEDUCT BRIDGE ON PEAK FOREST CANAL STATION ROAD	II
1088122	PEAK FOREST CANAL OVERBRIDGE ON PEAK FOREST CANAL NEAR BUXTON ROAD	II
1117081	WOODLEY TUNNEL, NORTH PORTAL AT SJ 9360 9221 ON PEAK FOREST CANAL	II
1117082	BRIDGE NUMBER 15 AT SJ 9528 9011 ON PEAK FOREST CANAL	II
1117083	WOODLEY TUNNEL, SOUTH PORTAL AT SJ 9350 9205 ON PEAK FOREST CANAL	II
1117374	NUMBER 9 BRIDGE ON PEAK FOREST CANAL	II
1117375	NUMBER 13 BRIDGE ON PEAK FOREST CANAL	II

1117376	NUMBER 15 (WEST ENTRANCE TO HYDEBANK TUNNEL) ON PEAK FOREST CANAL	II
1117377	NUMBER 15 (EAST ENTRANCE TO HYDEBANK TUNNEL) ON PEAK FOREST CANAL	II
1162777	PEAK FOREST CANAL BRIDGE NUMBER 30	II
1231358	CANAL BRIDGE NUMBER 27	II
1231680	CANAL BRIDGE NUMBER 26	II
1231683	CANAL BRIDGE, NUMBER 23 BY LITTLE WOODEND	II
1242267	PEAK FOREST CANAL, GOYT AQUEDUCT	I
1242268	NUMBER 16 BRIDGE ON PEAK FOREST CANAL	II
1242288	MARPLE LOCKS NUMBER 2 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242289	MARPLE LOCKS NUMBER 3 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242290	MARPLE LOCKS NUMBER 5 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242291	MARPLE LOCKS NUMBER 7 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242292	MARPLE LOCKS NUMBER 8 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242293	MARPLE LOCKS NUMBER 9 PEAK FOREST CANAL	II
1242294	MARPLE LOCKS NUMBER 10 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242446	MARPLE LOCKS NUMBER 11 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242447	MARPLE LOCKS NUMBER 12 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242448	MARPLE LOCKS NUMBER 13 ON PEAK FOREST CANAL	II
1242450	MARPLE LOCKS NUMBER 16 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1242451	ROUTING WALLS BRIDGE (NUMBER 21) ON PEAK FOREST CANAL	II
1242461	AQUEDUCT SOUTH WEST OF PEERS COTTAGES, STRINES ON PEAK FOREST CANAL	II
1249858	PEAK FOREST CANAL HORSE TUNNEL, BUXWORTH ARM	II
1260014	POSSET BRIDGE (NUMBER 18) ON PEAK FOREST CANAL	II
1260015	MARPLE LOCKS NUMBER 14 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1260016	MARPLE LOCKS NUMBER 15 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1260023	LOCKKEEPER'S COTTAGE ADJACENT TO LOCK NUMBER 9 ON PEAK FOREST CANAL	II
1260088	BOTTOMLOCK HOUSE ON PEAK FOREST CANAL	II
1260090	MARPLE LOCKS NUMBER 1 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1260091	MARPLE LOCKS NUMBER 4 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1260092	MARPLE LOCKS NUMBER 6 AND ADJOINING FOOTBRIDGE ON PEAK FOREST CANAL	II
1319490	NUMBER 12 BRIDGE ON PEAK FOREST CANAL	II
1319491	AQUEDUCT OVER GREEN LANE ON PEAK FOREST CANAL	II
1356423	AQUEDUCT OVER THE RIVER TAME (THE PART IN DUKINFIELD)	II
1356443	PEAK FOREST CANAL, MANCHESTER ROAD CANAL BRIDGE	II
1001954	Marple aqueduct	SM
1021384	Bugsworth canal basin, tramway, quarry and limekilns	SM

Pocklington Canal Gd II 13

1083859	POCKLINGTON CANAL WALBUT LOCK	II
1083876	POCKLINGTON CANAL GILES LOCK	II

1084122	POCKLINGTON CANAL TOP LOCK AND CANAL HEAD	II
1084126	POCKLINGTON CANAL COAT'S LOCK	II
1084127	POCKLINGTON CANAL SANDHILL LOCK	II
1162005	POCKLINGTON CANAL COTTINGWITH LOCK	II
1162050	POCKLINGTON CANAL THORNTON LOCK	II
1251052	POCKLINGTON CANAL SILBURN LOCK	II
1309793	POCKLINGTON CANAL WALBUT BRIDGE	II
1346430	POCKLINGTON CANAL CHURCH BRIDGE	II
1393978	HAGG BRIDGE	II
1393979	GARDHAM LOCK AND SWING BRIDGE	II
1393980	POCKLINGTON CANAL COAT'S BRIDGE	II

Portsmouth & Arundel C. Gd II 1

1237839	OLD CANAL BRIDGE, ON FOOTPATH 157	II

Rochdale Canal SM 1 Gd II* 1 Gd II 106 108

1031919	ROCHDALE CANAL BRANCH ARM HALFPENNY BRIDGE	II
1038295	ROCHDALE CANAL LOCK NUMBER 52 AND TOWPATH BRIDGE	II
1038316	ROCHDALE CANAL LOCK NUMBER 49 (MOSS UPPER LOCK) (EAST OF ROCHDALE ROAD)	II
1068068	WALMSLEY'S HOUSE AND WAREHOUSE	II
1068521	ROCHDALE CANAL LOCK NO. 45 AND PIKEHOUSE BRIDGE	II
1084247	ROCHDALE CANAL BELFIELD BRIDGE	II
1084248	ROCHDALE CANAL LOCK NUMBER 50 (MOSS LOWER LOCK)	II
1133744	LANE BOTTOM BRIDGE	II
1133780	GAUXHOLME CANAL WAREHOUSE	II
1133783	BRIDGE OVER ROCHDALE CANAL	II
1133939	ROCHDALE CANAL CALLIS BRIDGE	II
1133940	ROCHDALE CANAL LOCK NUMBER 13 (CALLIS LOCK)	II
1134496	ROCHDALE CANAL LOCK NUMBER 2 WEST END OF OLD CAUSEWAY, SOWERBY BRIDGE	II
1134498	OVERFLOW CHANNEL AND CULVERT ON NORTH WEST SIDE OF CANAL BRIDGE	II
1134548	NUMBERS 1 AND 2 CALDER HOUSE AND ATTACHED STABLE	II
1134549	WHARF HOUSE (Sowerby Bridge)	II
1134569	DEANROYD BRIDGE	II
1162311	ROCHDALE CANAL LOCK NO. 39	II
1162492	ROCHDALE CANAL LOCK NO. 62 (CONEYGREEN LOCK)	II
1185131	ELLEN ROYD BRIDGE	II
1185292	BRIDGE OVER THE ROCHDALE CANAL	II
1185300	ROCHDALE CANAL LOCK NUMBER 12 (RAWDEN MILL LOCK)	II
1200844	ROCHDALE CANAL COMPANY OFFICE	II
1200845	DALE WAREHOUSE	II*

1228547	CANAL BRIDGE	II
1228984	LOBB MILL BRIDGE	II
1228995	KILNHURST BRIDGE	II
1229242	HOLLINS BRIDGE OVER THE ROCHDALE CANAL	II
1229748	ROCHDALE CANAL LOCK 17 OLD ROYD LOCK AND RETAINING WALLS OF OVERFLOW CHANNEL	II
1229749	ROCHDALE CANAL LOCK 18 SHOP LOCK	II
1229750	ROCHDALE CANAL MILESTONE ON CANAL TOWPATH TO NORTH OF TODMORDEN LOCK NUMBER 19 AT NGR SD 935240	II
1229751	ROCHDALE CANAL LOCK 23 GAUXHOLME MIDDLE LOCK	II
1229752	ROCHDALE CANAL LOCK 26 PINNEL LOCK	II
1229753	ROCHDALE CANAL LOCK 28 BIRKS MILL LOCK	II
1229754	ROCHDALE CANAL LOCK 31 LIGHTBANK LOCK	II
1230188	ROCHDALE CANAL LOCK NUMBER 5 (EDWARD KILNER LOCK)	II
1230189	ROCHDALE CANAL BREARLEY BRIDGE	II
1230190	ROCHDALE CANAL REDACRE BRIDGE	II
1230191	ROCHDALE CANAL BROADBOTTOM BRIDGE	II
1230192	ROCHDALE CANAL LOCK NUMBER 7 (BROADBOTTOM) AND OVERFLOW CHANNEL TO NORTH	II
1230194	ROCHDALE CANAL MAYROYD BRIDGE	II
1230195	ROCHDALE CANAL LOCK NUMBER 8 (MAY ROYD LOCK)	II
1230196	ROCHDALE CANAL LOCK NUMBER 9 AND ATTACHED FOOTBRIDGE	II
1230197	ROCHDALE CANAL LOCK NUMBER 10	II
1230198	ROCHDALE CANAL STUBBINS BRIDGE	II
1230245	ROCHDALE CANAL BLACK PIT AQUEDUCT	II
1230310	ROCHDALE CANAL LOCK 14 HOLMCOAT BRIDGE LOCK	II
1230348	ROCHDALE CANAL LOCK 19 TODMORDEN LOCK	II
1230375	ROCHDALE CANAL LOCK 20 WADSWORTH MILL LOCK	II
1230396	ROCHDALE CANAL LOCK 22 GAUXHOLME LOWEST LOCK	II
1230525	ROCHDALE CANAL LOCK 27 HOLLINGS LOCK	II
1230534	ROCHDALE CANAL LOCK 30 WINTERBUTLEE LOCK	II
1230542	ROCHDALE CANAL CANAL OVERFLOW FORD APPROXIMATELY 30 METRES TO NORTH WEST OF CANAL BRIDGE	II
1230547	ROCHDALE CANAL LOCK 33 BOTTOMLEY LOCK	II
1230548	ROCHDALE CANAL LOCK 34 WARLAND LOWER LOCK AND ATTACHED FOOTBRIDGE	II
1230710	SHAW WOOD BRIDGE OVER THE ROCHDALE CANAL	II
1230840	BALTIMORE BRIDGE	II
1231125	WOODHOUSE MILL BRIDGE	II
1247478	ROCHDALE CANAL BOUNDARY WALL TO CANAL BETWEEN CHORLTON STREET AND MINSHULL STREET	II

1247479	ROCHDALE CANAL LOCK NUMBER 83, TO THE EAST OF TARIFF STREET	II
1247480	ROCHDALE CANAL LOCK NUMBER 85, IN TUNNEL BETWEEN PICCADILLY AND DALE STREET	II
1247481	ROCHDALE CANAL LOCK NUMBER 86, TO EAST OF CHORLTON STREET	II
1247482	ROCHDALE CANAL LOCK NUMBER 90, 30 METRES WEST OF ALBION BRIDGE	II
1247483	ROCHDALE CANAL LOCK NUMBER 91 AT EAST END OF GAYTHORN TUNNEL	II
1247485	ROCHDALE CANAL LOCK NUMBER 82, TO EAST OF GREAT ANCOATS STREET	II
1247550	UNION STREET BRIDGE	II
1247555	BOUNDARY WALL TO ROCHDALE CANAL BETWEEN PRINCESS STREET AND SACKVILLE STREET ROCHDALE CANAL BOUNDARY WALL TO CANAL STREET BETWEEN PRINCESS STREET AND SACKVILLE STREET	II
1247557	ROCHDALE CANAL LOCK NUMBER 84 (DALE STREET LOCK)	II
1247580	ROCHDALE CANAL LOCK NUMBER 87, TO EAST OF PRINCESS STREET, WITH CAST IRON FOOTBRIDGE BESIDE STREET	II
1247596	ROCHDALE CANAL LOCK NUMBER 89 (TIB LOCK), ON SOUTH SIDE OF HAVELOCK MILLS	II
1270837	ROCHDALE CANAL BOUNDARY WALL TO CANAL BETWEEN SACKVILLE STREET AND CHORLTON STREET	II
1270857	ROCHDALE CANAL LOCK NUMBER 88, TO EAST OF OXFORD STREET	II
1270858	ROCHDALE CANAL LOCK NUMBER 92 AND CASTLE STREET BRIDGE	II
1270859	ROCHDALE CANAL TOWPATH FOOTBRIDGE AND ASSOCIATED RAMPS OPPOSITE BROWNFIELD MILL	II
1270860	ROCHDALE CANAL RETAINING WALL ON SOUTH SIDE OF REDHILL STREET, WEST OF UNION STREET BRIDGE	II
1278546	ROCHDALE CANAL LOCK 32 SANDS LOCK	II
1278547	ROCHDALE CANAL STONE HOUSE BRIDGE	II
1278548	ROCHDALE CANAL LOCK 35 WARLAND UPPER LOCK	II
1278603	ROCHDALE CANAL LOCK 24 GAUXHOLME HIGHEST LOCK	II
1278642	ROCHDALE CANAL LOCK 16 LOBB MILL LOCK	II
1278735	ROCHDALE CANAL STONEY SPRING BRIDGE	II
1278736	ROCHDALE CANAL LOCK NUMBER 6 (BREARLEY UPPER LOCK)	II
1278737	ROCHDALE CANAL LOCK NUMBER 11	II
1278914	ROCHDALE CANAL LOCK 21 SHADE LOCK	II
1278915	ROCHDALE CANAL LOCK 25 SMITHYHOLME LOCK	II
1278916	ROCHDALE CANAL LOCK 29 NIP SQUARE LOCK	II
1278952	ROCHDALE CANAL LOCK 15 SHAWPLAINS LOCK	II
1299733	ROCHDALE CANAL BRIDGE AT BURNT ACRES WOOD BOTTOM	II
1299830	HIGH ROYD BRIDGE ROCHDALE CANAL HIGH ROYD BRIDGE	II
1299854	LOCK NUMBER 1 ONTO SOWERBY BASIN, SOWERBY BRIDGE	II
1313719	SOWERBY LONG BRIDGE	II
1313720	AQUEDUCT CARRYING CANAL OVER LUDDENDEN BROOK	II
1346236	ROCHDALE CANAL COPPY BRIDGE	II

1346237	ROCHDALE CANAL LOCK NUMBER 53	II
1356233	ROCHDALE CANAL LOCK NUMBER 58 AND ADJOINING BRIDGE	II
1356237	ROCHDALE CANAL LOCK NO 46 AND WINDY BANK BRIDGE	II
1366168	FORMER BOLTON BROW METHODIST CHURCH AND CANAL WAREHOUSE	II
1005559	March Barn skew bridge, Castleton	SM

Rother Navigation Gd II 2

1392319	BRIDGE ON FORMER ROTHER NAVIGATION (AT SU88942135)	II
1392320	BRIDGE ON FORMER ROTHER NAVIGATION (AT SU98291882)	II

Royal Military Canal SM 21

1002214	Royal Military Canal, Coastguard Cottages to Wickham Cliff	AM
1002215	Royal Military Canal, Wickham Cliff to Strand Bridge, Winchelsea	AM
1002216	Royal Military Canal, Iden Lock to Kent Ditch	AM
1003127	Royal Military Canal, Twiss Road Bridge to Seabrook Lodge Bridge	AM
1003259	Royal Military Canal, Iden Lock	AM
1003260	Royal Military Canal, Seabrook Lodge Bridge to Seabrook Sluice	AM
1003558	Royal Military Canal, Kent Ditch to Heron House, Folkestone	AM
1005113	Royal Military Canal, Honeypot Cottage to West Hythe Dam	AM
1005114	Royal Military Canal, West Hythe Bridge to Scanlon's Bridge	AM
1005115	Royal Military Canal, Scanlon's Bridge to Town Bridge	AM
1005116	Royal Military Canal, Town Bridge to Twiss Road Bridge	AM
1005123	Royal Military Canal, Heron House to Appledore Bridge	AM
1005124	Royal Military Canal, Appledore Bridge to Kenardington Bridge	AM
1005125	Royal Military Canal, Kenardington Bridge to Warehorne Bridge	AM
1005126	Royal Military Canal, Warehorne Bridge to Ham Street Bridge	AM
1005127	Royal Military Canal, Ham Street Bridge to Bilsington Bridge	AM
1005128	Royal Military Canal, Bilsington Bridge to Bonnington Bridge	AM
1005129	Royal Military Canal, Bonnington Bridge to Gigger's Green Bridge	AM
1005130	Royal Military Canal, Gigger's Green Bridge to Honeypot Cottage	AM
1005492	Royal Military Canal, West Hythe Dam to West Hythe Bridge	AM
1005569	Royal Military Canal, Cliff End to Coastguard Cottages	AM

St Columb Canal NIL

St Helens Canal (Sankey Brook Nav) Gd II 6

1075926	BRADLEY LOCK	II
1198862	BRADLEY SWING BRIDGE	II
1254641	PREMISES OF GORDAN SHEDS (canal stables)	II
1283484	NEW DOUBLE LOCK ON THE SANKEY CANAL	II
1330354	MERSEY LOCKS ST HELENS CANAL	II

1343270	OLD DOUBLE LOCK	II

River Severn — Gd II* 1 Gd II 5 Total 6

1100001	QUAY SIDE ON SOUTH SIDE OF RIVER SEVERN, EXTENDING SOUTH FROM SEVERN BRIDGE FOR ABOUT 290 METRES INCLUDING FOUR FLIGHTS OF STEPS	II
1122623	QUAY WAREHOUSES	II
1293325	SEVERN WHARF BUILDING (PREMISES OF IRONBRIDGE GORGE MUSEUM TRUST)	II*
1348662	QUAY SIDE ON NORTH SIDE OF RIVER SEVERN, EXTENDING SOUTH FROM SEVERN BRIDGE FOR ABOUT 140 METRES AND TWO FLIGHTS OF STEPS	II
1377077	IRONBRIDGE WHARF WALLS, FROM SEVERN WAREHOUSE TO EAST OF THE IRON BRIDGE	II

Sheffield & S Yorks Nav SM 1 Gd II* 1 Gd II 9 11

inc: Sheffield Canal (Sheffield & Tinsley C.), R Don Nav, Stainforth & Keadby C.

1247014	CANAL OFFICE CANAL WHARF	II
1247016	TERMINAL WAREHOUSE CANAL WHARF	II*
1247372	BACON LANE CANAL BRIDGE SHEFFIELD AND TINSLEY CANAL	II
1247373	CADMAN STREET CANAL BRIDGE SHEFFIELD AND TINSLEY CANAL	II
1270905	DARNALL CANAL AQUEDUCT AND ADJOINING RAISED FOOTWAYS SHEFFIELD AND TINSLEY CANAL	II

R Don Nav

1132714	JORDAN LOCK	II
1192826	REMAINS OF SPROTBROUGH PUMP SITUATED TO NORTH OF SPROTBROUGH LOCK	II
1286444	BRAMWITH BRIDGE	II
1314870	LOCK AT STRAWBERRY LOCK	II

Stainforth & Keadby C.

1342734	KEADBY LOCK	II
1005204	Keadby Lock	SM

Shrewsbury C SM 1 Gd I 1 Gd II 6 8

inc Wombridge Canal

1037006	SHREWSBURY CANAL, LONGDON AQUEDUCT SHREWSBURY CANAL, THE AQUEDUCT OF THE SHREWSBURY CANAL	I
1038627	CANAL BRIDGE NORTH WEST OF COVERED CANAL DOCK WAREHOUSE	II
1187281	COVERED CANAL DOCK WAREHOUSE	II
1187397	FORMER CANAL TOLL CLERKS OFFICE	II
1239507	SHROPSHIRE UNION CANAL SOUTH WEST ENTRANCE TO BERWICK TUNNEL	II
1254526	THE BUTTER MARKET (Howard Street warehouse)	II

1279751	HADLEY PARK LOCK AND ADJOINING BRIDGE TURNIP LOCK	II
1006275	Canal aqueduct over River Tern	SM

Shropshire Canal Gd II 3

1054161	COALPORT INCLINED PLANE THE HAY INCLINED PLANE	II
1258461	FORMER CANAL BRIDGE ABOUT 130 METRES SOUTH OF METHODIST CHAPEL	II
1377111	CANAL AQUEDUCT AT NATIONAL GRID REFERENCE 695 057	II

Shropshire Union Canal SM 6 Gd II* 10 Gd II 233 249

Birmingham & Liverpool Jn
Chester Canal
Ellesmere Canal
Middlewich Branch
Newport Branch

1025829	SHROPSHIRE UNION CANAL TYRLEY LOCK NUMBER 3 AT SJ 688 326	II
1025830	SHROPSHIRE UNION CANAL TYRLEY LOCK NUMBER 5	II
1029863	SHROPSHIRE UNION CANAL BRIDGE NUMBER 61	II
1039237	SHROPSHIRE UNION CANAL DIRTY LANE BRIDGE (NUMBER 20) AT SJ 853 131	II
1039238	SHROPSHIRE UNION CANAL AQUADUCT AT SJ 850 140	II
1039255	SHROPSHIRE UNION CANAL LAPLEY WOOD BRIDGE NUMBER 17	II
1039256	SHROPSHIRE UNION CANAL WHEATON ASTON BRIDGE NUMBER 18	II
1039259	AQUEDUCT CARRYING SHROPSHIRE UNION CANAL SHROPSHIRE UNION CANAL AQUEDUCT OVER WATLING STREET (THAT PART IN STRETTON CP)	II
1039305	SHROPSHIRE UNION CANAL AQUEDUCT CARRYING CANAL OVER RIVER PENK AT N.G.R. SJ 88880365 (THAT PART IN BREWOOD CIVIL PARISH) SHROPSHIRE UNION CANAL AQUEDUCT CARRYING CANAL OVER RIVER PENK AT N.G.R. SJ 88880365 (THAT PART IN WROTTESLEY CIVIL PARISH)	II
1039347	SHROPSHIRE UNION CANAL AQUEDUCT OVER WATLING STREET (THAT PART IN BREWOOD CIVIL PARISH)	II
1039348	SHROPSHIRE UNION CANAL NUMBER 5 UPPER HATTONS BRIDGE	II
1039349	SHROPSHIRE UNION CANAL NUMBER 9 (CHILLINGTON BRIDGE)	II
1054193	SHROPSHIRE UNION CANAL POLLETT'S BRIDGE (THAT PART IN WHITTINGTON CP)	II
1054194	SHROPSHIRE UNION CANAL LOCKS AT NGR SJ 3307 3415 (THAT PART IN WHITTINGTON CP)	II
1054198	SHROPSHIRE UNION CANAL BRIDGE NUMBER 74	II
1054199	DISUSED BARGE HOUSE	II
1054272	NAVIGATION INN AND ATTACHED WAREHOUSE	II
1055297	BRIDGE NUMBER 68 ADDERLEY LEES BRIDGE	II
1055298	BRIDGE NUMBER 69 ADDERLEY WHARF BRIDGE	II
1055299	BRIDGE NUMBER 72 HAWKSMOOR BRIDGE	II
1055359	SHROPSHIRE UNION CANAL BRIDGE NO 50 (SOUDLEY BRIDGE)	II

1055360	SHROPSHIRE UNION CANAL BRIDGE NUMBER 52 (FOX BRIDGE)	II
1055362	SHROPSHIRE UNION CANAL BRIDGE NUMBER 54 (WESTCOTTMILL BRIDGE)	II
1055499	CANAL WAREHOUSE OF THE SHROPSHIRE UNION CANAL (LLANGOLLEN BRANCH)	II
1055906	BRIDGE NUMBER 52 (GREAVES BRIDGE)	II
1055907	BRIDGE NUMBER 57 (ELLESMERE TUNNEL)	II
1055909	BRIDGE NUMBER 64	II
1055910	BROOM'S BRIDGE (THAT PART IN ELLESMERE RURAL CP)	II
1055911	PADDOCK BRIDGE NUMBER 2 (THAT PART IN ELLESMERE RURAL CP)	II
1087014	SHROPSHIRE UNION CANAL POWELL'S BRIDGE	II
1087090	ANCILLARY BUILDINGS NORTH AND WEST OF LIGHTHOUSE	II
1115810	MIDDLEWICH BRANCH CANAL BRIDGE NUMBER 18 AT SJ 679 621	II
1115811	SHROPSHIRE UNION CANAL AQUEDUCT OVER RIVER WEAVER AT SJ 664 589	II
1115812	SHROPSHIRE UNION CANAL BUNBURY LOCKS	II
1115814	MIDDLEWICH BRANCH CANAL JACKSONS BRIDGE (NUMBER 7) AT SJ 652 585	II
1115815	SHROPSHIRE UNION CANAL AQUEDUCT OVER RIVER WEAVER AT SJ 664 589	II
1115816	MIDDLEWICH BRANCH CANAL RUTTER'S BRIDGE AT SJ 616 572	II
1115818	BRIDGE NO 75 AT SJ 659 415	II
1116601	MILEPOST SHROPSHIRE UNION CANAL 4.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1116604	MILEPOST SHROPSHIRE UNION CANAL 6.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1116701	MILEPOST SHROPSHIRE UNION CANAL 3.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1130337	PORTERS ROW COTAGES	II
1130338	BOILER-AND-PUMP HOUSES AND HYDRAULIC ACCUMULATOR TOWER	II
1130339	CANAL STABLES	II
1130340	LIME SHED	II
1130344	LOCK KEEPER'S HUT BETWEEN LOWER MERSEY STREET AND LOWER DOCK BASIN	II
1130345	LIGHTHOUSE MARKING ENTRANCE FROM MERSEY TO SHROPSHIRE UNION CANAL	II
1130568	LLANGOLLEN CANAL WILLEYMOOR LOCK (IN TUSHINGHAM CUM GRINDLEY CP)	II
1130608	CANAL BRIDGE NO 118, DAVIES'S BRIDGE	II
1130645	CANAL BRIDGE NO 114 NIXONS BRIDGE	II
1130647	CANAL BRIDGE NO 111 WILLIAMSONS BRIDGE	II
1130668	CANAL BRIDGE NUMBER 122	II
1136367	SHROPSHIRE UNION CANAL MAIN LINE HACK GREEN LOCK NUMBER 2 (NORTH OF HACK GREEN BRIDGE)	II
1136388	LLANGOLLEN BRANCH OF SHROPSHIRE UNION CANAL SWANLEY LOCK NUMBER 2 (NORTH OF SWANLEY BRIDGE)	II
1136456	SHROPSHIRE UNION CANAL MAIN LINE NANTWICH JUNCTION BRIDGE NUMBER 92	II
1136464	HURLESTON BRIDGE NUMBER 1	II
1136468	LLANGOLLEN BRANCH OF THE SHROPSHIRE UNION CANAL HURLESTON LOCK NUMBER 2	II
1136476	LLANGOLLEN BRANCH OF THE SHROPSHIRE UNION CANAL HURLESTON LOCK	

	NUMBER 4 (WEST)	II
1138524	MILEPOST	II
1138542	SHROPSHIRE UNION CANAL MAIN LINE LOCK GATE NORTH SIDE OF NANTWICH JUNCTION BRIDGE	II
1138544	LLANGOLLEN BRANCH OF THE SHROPSHIRE UNION CANAL HURLESTON LOCK NUMBER 1 (EAST)	II
1138571	SHROPSHIRE UNION CANAL MAIN LINE HACK GREEN LOCK NUMBER 1 (SOUTH OF HACK GREEN BRIDGE)	II
1138587	LLANGOLLEN BRANCH OF SHROPSHIRE UNION CANAL, BADDILEY LOCK NUMBER 1	II
1138588	LLANGOLLEN BRANCH OF SHROPSHIRE UNION CANAL, BADDILEY LOCK NUMBER 3	II
1138653	MINSHULL LOCK	II
1138693	MINSHULLHILL BRIDGE (BRIDGE NO 14)	II
1138798	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL BRIDGE NUMBER 30 CARRYING ST ANN'S ROAD OVER CANAL	II
1138799	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL AQUEDUCT CARRYING CANAL OVER RIVER WHEELOCK	II
1138816	SHROPSHIRE UNION CANAL WEAVER'S BRIDGE	II
1138817	SHROPSHIRE UNION CANAL BEWLEY'S BRIDGE	II
1139013	TWO WIDE AND TWO NARROW LOCKS BETWEEN UPPER AND LOWER CANAL DOCK BASINS	II
1139213	AQUEDUCT OVER THE RIVER WHEELOCK	II
1145848	DOCK OFFICE	II
1145858	FORMER GASWORKS, CHAIN SHOP, FOUNDRY AND CANAL WORKSHOPS	II
1160260	BEESTON STONE LOCK	II
1160264	WHARTON'S BRIDGE	II
1160267	BATE'S MILL BRIDGE	II
1175932	SHROPSHIRE UNION CANAL BRIDGE NUMBER 48 (PARK HEATH BRIDGE)	II
1175954	SHROPSHIRE UNION CANAL BRIDGE NUMBER 49 (HAZELDINES BRIDGE)	II
1176021	SHROPSHIRE UNION CANAL BRIDGE NUMBER 51 (NEW BRIGHTON BRIDGE)	II
1176422	BLACKSMITH'S AND JOINER'S SHOP, BRITISH WATERWAYS BOARD CANAL MAINTENANCE DEPOT BRITISH WATERWAYS BOARD CANAL MAINTENANCE DEPOT, SHROPSHIRE UNION CANAL (SOUTH EAST SIDE) (LLANGOLLEN BRANCH)	II*
1176445	BEECH HOUSE BRITISH WATERWAYS BOARD CANAL MAINTENANCE DEPOT, BEECH HOUSE (NOS. 2-6), SHROPSHIRE UNION CANAL (SOUTH EAST SIDE) (LLANGOLLEN BRANCH)	II*
1176455	BRIDGE NUMBER 70 WEMS BRIDGE	II
1176460	BRIDGE NUMBER 71 MASSEY'S BRIDGE	II
1176472	BRIDGE NUMBER 73 ADDERLEY POOL BRIDGE	II
1176837	BRIDGE NUMBER 54 (MISSEACH BRIDGE)	II
1176925	BRIDGE NUMBER 56 (BURNS WOOD BRIDGE)	II
1176940	BRIDGE NUMBER 60 (STANKS BRIDGE)	II

1176952	BRIDGE NUMBER 68 (PRICES BRIDGE)	II
1176962	POLLETT'S BRIDGE (THAT PART IN ELLESMERE RURAL CP)	II
1176969	PADDOCK BRIDGE NUMBER 1 (THAT PART IN ELLESMERE RURAL CP)	II
1176978	LOCKS AT NGR SJ 3307 3415 (NEW MARTON BOTTOM LOCK) (THAT PART IN ELLESMERE RURAL CP)	II
1177227	SHROPSHIRE UNION CANAL, SHREWSBURY BRANCH CANAL BRIDGE APPROXIMATELY 20 METRES TO WEST OF NUMBERS 1 AND 2, CANAL COTTAGES	II
1177300	THE WHARFINGER'S HOUSE	II
1177520	SHROPSHIRE UNION CANAL CRANE 10 METRES WEST OF BRIDGE NUMBER 79	II
1180224	SHROPSHIRE UNION CANAL NUMBER 6 (LOWER HATTONS BRIDGE)	II
1180237	SHROPSHIRE UNION CANAL BROOM'S BRIDGE (THAT PART IN WHITTINGTON CP)	II
1180240	SHROPSHIRE UNION CANAL PADDOCK BRIDGE NUMBER 2 (THAT PART IN WHITTINGTON CP)	II
1180249	SHROPSHIRE UNION CANAL CANAL MILEPOST APPROXIMATELY 40 YARDS NORTH OF AVENUE BRIDGE (NGR SJ 88830760)	II
1180260	SHROPSHIRE UNION CANAL LOCKGATE BRIDGE (THAT PART IN WHITTINGTON CP)	II
1187373	QUARRY BRIDGE CANAL BRIDGE NUMBER 121	II
1188717	SHROPSHIRE UNION CANAL MILEPOST AT N.G.R. SJ 89020291	II
1201868	LOCK AT SOUTHEAST END OF SHROPSHIRE UNION CANAL	II
1201869	SHROPSHIRE UNION CANAL TOLL OFFICE TO NORTH WEST OF BRIDGE NO 1, AUTHERLEY JUNCTION	II
1205985	SHROPSHIRE UNION CANAL BRIDGE NUMBER 58	II
1217566	MIDDLEWICH BRANCH CANAL NANNEY'S BRIDGE AT SJ 657 585	II
1217676	MIDDLEWICH BRANCH CANAL SANDHOLE BRIDGE (NUMBER 3) AT SJ 622 572	II
1217681	SHROPSHIRE UNION CANAL MILEPOST CIRCA 75 METRES SOUTH OF MARSH LANE BRIDGE (NUMBER 91) AT SJ 641 515	II
1225442	MILEPOST ON EAST SIDE OF AUDLEM LOCK NO 5 AT SJ 659 423	II
1225551	WHARF COTTAGE, AUDLEM WHARF, AT SJ 657 436	II
1229360	GREENFIELD LOCK	II
1229365	TARVIN ROAD LOCK	II
1229519	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL CANAL LOCK ADJACENT TO JUNCTION WITH TRENT AND MERSEY CANAL	II
1229541	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL AQUEDUCT CARRYING CANAL OVER NANTWICH ROAD	II
1229632	KNOLLS BRIDGE (CANAL BRIDGE NUMBER 131)	II
1230413	DUTTON'S BRIDGE	II
1237206	SHROPSHIRE UNION CANAL ALLMAN'S BRIDGE	II*
1237207	SHROPSHIRE UNION CANAL (EDSTASTON BRANCH) DOBSON'S BRIDGE	II
1237311	SHROPSHIRE UNION CANAL BRIDGE NUMBER 43	II
1237314	SHROPSHIRE UNION CANAL MORRIS' BRIDGE	II
1237348	SHROPSHIRE UNION CANAL (EDSTASTON BRANCH) BOODLES BRIDGE	II

1240431	SHROPSHIRE UNION CANAL TYRLEY LOCK NUMBER 2 AT SJ 689 325	II
1240459	SHROPSHIRE UNION CANAL TYRLEY LOCK NUMBER 4 AT SJ 688 328	II
1240680	SHROPSHIRE UNION CANAL BEESTON CAST IRON LOCK AT SJ 553 598	II
1242775	MILEPOST SHROPSHIRE UNION CANAL 2.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1242782	MILEPOST SHROPSHIRE UNION CANAL 3.5 MILES TO NORTH OF NORBURY JUNCTION	II
1242783	MILEPOST SHROPSHIRE UNION CANAL 2.5 MILES TO NORTH OF NORBURY JUNCTION	II
1242904	MILEPOST SHROPSHIRE UNION CANAL 0.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1242984	SHROPSHIRE UNION CANAL, CANAL TUNNEL SOUTH OF NORBURY JUNCTION	II
1242995	SHROPSHIRE UNION CANAL, CANAL TUNNEL AT THE SOUTH EAST CORNER OF SHELMORE WOOD	II
1243005	MILEPOST SHROPSHIRE UNION CANAL 0.5 MILES TO NORTH OF NORBURY JUNCTION	II
1243052	SHROPSHIRE UNION CANAL CASTLE CUTTING BRIDGE (NUMBER 30) AT SJ 830 185	II
1243055	SHROPSHIRE UNION CANAL RYEHILL CUTTING BRIDGE (NUMBER 23) AT SJ 830 185	II
1243056	SHROPSHIRE UNION CANAL SUSHIONS BRIDGE (NUMBER 21) AT SJ 847 147	II
1243057	SHROPSHIRE UNION CANAL NEWPORT ROAD BRIDGE (NUMBER 35) AT SJ 819 203	II
1243058	SHROPSHIRE UNION CANAL COWLEY DOUBLE ROAD BRIDGE (NUMBER 31) AT SJ 829 189	II
1243059	SHROPSHIRE UNION CANAL COWLEY BRIDGE (NUMBER 32) AT SJ 827 192	II
1243060	BRIDGE NUMBER 42 AT SJ 775 256	II
1243061	SHROPSHIRE UNION CANAL SHEBDON AQUEDUCT AT SJ 758 261	II
1243062	NEWPORT BRANCH CANAL BASIN BRIDGE (NUMBER 1) NORBURY JUNCTION AT SJ 792 227	II
1243063	SHROPSHIRE UNION CANAL JUNCTION BRIDGE (NUMBER 38) NORBURY JUNCTION AT SJ 792 228	II
1243117	SHROPSHIRE UNION CANAL BARN BRIDGE (NUMBER 37) AT SJ 809 211	II
1243123	SHROPSHIRE UNION CANAL BRIDGE NUMBER 41 AT SJ 782 252	II
1244333	SHROPSHIRE UNION CANAL STARKS BRIDGE	II*
1252181	SHROPSHIRE UNION CANAL BELVIDE ROUND HOUSE AND RETAINING WALL, BELVIDE RESERVOIR, AT SJ 869103	II*
1258846	SHROPSHIRE UNION CANAL KNIGHTON BRIDGE (NUMBER 46) AT SJ 745 269	II
1258847	SHROPSHIRE UNION CANAL HIGH ONN BRIDGE (NUMBER 25) AT SJ 835 168	II
1258848	SHROPSHIRE UNION CANAL PARKS BARN BRIDGE (NUMBER 28) AT SJ 831 177	II
1259076	SHROPSHIRE UNION CANAL NEWPORT ROAD BRIDGE (NUMBER 45) AND STOP GATE AT SJ 746 268	II
1259089	SHROPSHIRE UNION CANAL BLACK FLAT BRIDGE (NUMBER 47) AT SJ 741 271	II
1259092	SHROPSHIRE UNION CANAL TURNOVER BRIDGE (NUMBER 26) AT SJ 832 171	II
1259113	SHROPSHIRE UNION CANAL WOOD EATON BRIDGE (NUMBER 29) AT SJ 831 181	II
1259817	MILEPOST SHROPSHIRE UNION CANAL 1.5 MILES TO NORTH OF NORBURY JUNCTION	II
1259861	MILEPOST SHROPSHIRE UNION CANAL 1.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1261168	MIDDLEWICH BRANCH CANAL HUGHES BRIDGE AT SJ 683 653	II
1261169	MIDDLEWICH BRANCH CANAL BRIDGE NUMBER 20 AT SJ 679 630	II

1264234	SHROPSHIRE UNION CANAL ROUNDTHORN BRIDGE	II
1266264	MILEPOST CIRCA 230 METRES NORTH OF BENNETT'S BRIDGE (NO 80) AT SJ 652 455	II
1273014	SHROPSHIRE UNION CANAL BOAT MAINTENANCE WORKSHOP ON EAST SIDE OF CANAL NORBURY JUNCTION AT SJ 792 227	II
1273058	SHROPSHIRE UNION CANAL BRIDGE NUMBER 43 AT SJ 772 259	II
1273078	SHROPSHIRE UNION CANAL LITTLE ONN BRIDGE (NUMBER 24) AT SJ 842 161	II
1273079	SHROPSHIRE UNION CANAL PAVE LANE ROAD BRIDGE (NUMBER 34) AT SJ 821 201	II
1273080	SHROPSHIRE UNION CANAL PLARDIWICK BRIDGE (NUMBER 36) AT SJ 815 206	II
1275369	SHROPSHIRE UNION CANAL BUNBURY BRIDGE	II
1279043	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL BRIDGE NUMBER 31 CARRYING SUTTON LANE OVER CANAL	II
1280437	SHROPSHIRE UNION CANAL BERRISFORD CANAL AQUEDUCT	II
1282449	BRIDGE NO 1 OVER SHROPSHIRE UNION CANAL	II
1282451	SHROPSHIRE UNION CANAL TURNOVER BRIDGE NO 3	II
1293703	SHROPSHIRE UNION CANAL BRIDGE NUMBER 57 (HIGH BRIDGE)	II
1295019	SHROPSHIRE UNION CANAL NUMBER 8 (PARK BRIDGE)	II
1295150	CHIRK AQUEDUCT (THAT PART IN WESTON RHYN CP)	II*
1298829	CANAL BRIDGE NUMBER 120	II
1307396	SHROPSHIRE UNION CANAL CORBETT'S BRIDGE (BRIDGE NUMBER 74)	II
1308050	SHROPSHIRE UNION CANAL BRIDGE NUMBER 55 (GOLDSTONE BRIDGE)	II
1308054	SHROPSHIRE UNION CANAL BRIDGE NUMBER 56 (CHESWARDINE ROAD BRIDGE) (THAT PART IN CHESWARDINE CIVIL PARISH)	II
1308081	SHROPSHIRE UNION CANAL BRIDGE NUMBER 53 (HALLEMANS BRIDGE)	II
1310901	THE WHARF	II
1312853	ROVING BRIDGE	II
1318902	IRON SHED	II
1319797	SHROPSHIRE UNION CANAL MILEPOST 4.5 MILES TO NORTH OF NORBURY JUNCTION	II
1319811	MILEPOST SHROPSHIRE UNION CANAL 5.5 MILES TO SOUTH OF NORBURY JUNCTION	II
1320249	MIDDLEWICH BRANCH CANAL HOLLINGSHEAD BRIDGE AT SJ 675 613	II
1320250	MIDDLEWICH BRANCH CANAL EARDSWICK BRIDGE AT SJ 670 599	II
1320251	MIDDLEWICH BRANCH CANAL EARDSWICK HALL BRIDGE AT SJ 671 602	II
1320252	SHROPSHIRE UNION CANAL STABLE BLOCK AT BUNBURY LOCKS	II
1320253	MIDDLEWICH BRANCH CANAL BENYON'S BRIDGE (NUMBER 4) AT SJ 628 573	II
1320255	BRIDGE NO 74 AT SJ 660 411	II
1320256	BENNETTS BRIDGE (NO 80) AT SJ 652 452	II
1320569	LOCK TO LOWER BASIN	II
1329816	STANTHORNE LOCK	II
1329999	THE CLAY WAREHOUSE	II
1330026	MIDDLEWICH BRANCH OF SHROPSHIRE UNION CANAL BRIDGE NUMBER 29 CARRYING FOOTPATH OVER CANAL	II

1330116	SHROPSHIRE UNION CANAL MAIN LINE CANAL MILE POST 30 METRES NORTH OF HACK GREEN BRIDGE	II
1330122	LLANGOLLEN BRANCH OF SHROPSHIRE UNION CANAL, BADDILEY LOCK NUMBER 2	II
1330142	LLANGOLLEN BRANCH OF THE SHROPSHIRE UNION CANAL HURLESTON LOCK NUMBER 3 II	
1330146	NANTWICH AQUEDUCT	II*
1330238	CANAL BRIDGE NO 116, FAULKNERS BRIDGE	II
1330258	CANAL BRIDGE NO 117, SALMONS BRIDGE	II
1330279	LLANGOLLEN CANAL POVEY'S LOCK AND SPILLWAY (THAT PART IN TUSHINGHAM CUM GRINDLEY)	II
1330280	LLANGOLLEN CANAL STABLES AT WILLEY MOOR LOCK	II
1330296	LOCK ADJACENT BRIDGE NO 108	II
1330390	ISLAND WAREHOUSE	II
1330391	PATTERN STORE	II
1354783	SHROPSHIRE UNION CANAL TYRLEY LOCK NUMBER 1 AT SJ 690 324	II
1357424	WRENBURY FRITH BRIDGE	II*
1357425	WRENBURY BRIDGE	II
1357482	WRENBURY CHURCH BRIDGE	II*
1366122	BRITISH WATERWAYS BOARD CANAL MAINTENANCE DEPOT, SHROPSHIRE UNION CANAL (SOUTH EAST SIDE) (LLANGOLLEN BRANCH) BRITISH WATERWAYS OFFICES AND DRY DOCK, BRITISH WATERWAYS BOARD CANAL MAINTENANCE DEPOT	II*
1366525	BRIDGE NO 33 (HASSEL'S LIFT UP BRIDGE NUMBER 1)	II
1366537	BRIDGE NUMBER 63 (CLAY PIT BRIDGE)	II
1367343	SHROPSHIRE UNION CANAL BRIDGE NUMBER 79	II
1367369	CHIRKBANK BRIDGE (BRIDGE NUMBER 21)	II
1367399	BRIDGE NUMBER 70 (THAT PART IN WHITTINGTON CP)	II
1367400	SHROPSHIRE UNION CANAL PADDOCK BRIDGE NUMBER 1 (IN WHITTINGTON CP)	II
1374012	SHROPSHIRE UNION CANAL CANAL MILEPOST APPROXIMATELY 50 YARDS NORTH OF BREWOOD BRIDGE (NGR 88000890)	II
1374050	SHROPSHIRE UNION CANAL NUMBER 7 (HUNTING BRIDGE)	II
1374070	SHROPSHIRE UNION CANAL BRIDGE NUMBER 3 (TURNOVER BRIDGE)	II
1374084	BRIDGE NUMBER 19 ON SHROPSHIRE UNION CANAL SHROPSHIRE UNION CANAL TAVERN BRIDGE NUMBER 19	II
1374896	ORIGINAL CANAL WAREHOUSE	II
1375715	Taylor's Boatyard (including Former Flat Shed, Narrowboat Shed, Former Steam Saw Mill, Blacksmith's Workshop/Forge, Carpenter's Workshop, Paint Workshop, Stores, Warehouse/Office Range and Dry Dock/Graving Dock)	SM
1375739	LOCK KEEPERS COTTAGE AT CHEMISTRY LOCK, WITH WALLED YARD AND PRIVY	II
1375740	HOOLE LANE LOCK	II
1375930	BRIDGE LOCK ON CANAL LINK FROM RIVER DEE TO CHESTER BASIN	II
1375932	GRAVING LOCK ON CANAL LINK TO RIVER DEE	II

1375933	IRON ROVING BRIDGE	II
1375934	NORTHGATE LOCKS	II
1377594	SHROPSHIRE UNION CANAL BRIDGE NUMBER 59	II
1391729	PANT BRIDGE	II
1393658	LLANGOLLEN CANAL WILLEYMOOR LOCK (THAT PART IN WIRSWALL CP)	II
1406777	High Bridge (Bridge No.39) Shropshire Union Canal Main Line	II
1002952	Roving bridge and lock called Newport Lock 255m south east of Wrekin View Farm	SM
1006078	Canal aqueduct(Forton)	SM
1006759	Beeston cast iron lock	SM
1006766	Lime kilns, associated tramways, structures and other buildings at Llanymynech	SM
1021433	A 1.43km length of the Ellesmere Canal and associated features at Chirk Bank	SM

Sleaford Canal Gd II 4

1061301	FORMER OFFICE BUILDING IN CENTRE OF YARD FORMERLY OCCUPIED BY HUBBARD AND PHILLIPS LIMITED	II
1061828	SLEAFORD CANAL COBBLER'S LOCK	II
1062116	LOCK TO SOUTH OF COGGESFORD MILL FARM	II
1261293	THE PINES AND ATTACHED FORMER WAREHOUSE AND OFFICES	II

River Soar (see GUC)

Somerset Coal Canal Gd II 10

1115372	FLIGHT OF 10 LOCKS,TO NORTH AND SOUTH OF CAISSON HOUSE	II
1158774	NORTH ENTRANCE TO WELLLOW TUNNEL, 100 YARDS TO NORTH OF WHITE BAINES, BULL'S HILL	II
1232502	FORMER AQUEDUCT OVER CAM BROOK AT NATIONAL GRID REFERENCE ST 7575 6050	II
1232542	BRIDGE OVER FORMER SOMERSETSHIRE COAL CANAL AT N G R ST 7564 6058	II
1232613	FLIGHT OF 5 LOCKS ON THE FORMER SOMERSETSHIRE COAL CANAL	II
1276919	LOCK WALLS AND BASIN WALL AT ENTRANCE OF SOMERSETSHIRE COAL CANAL SOUTH OF BASIN AT WEST OF DUNDAS AQUEDUCT	II
1320441	BRIDGE OVER CANAL,25 YARDS EAST OF CAISSON HOUSE	II
1320442	REMAINS OF THE BASIN AT THE BOTTOM OF THE INCLINED PLANE, 20 YARDS TO EAST OF INNER MEADOW COTTAGE.	II
1320467	SOUTH WEST ENTRANCE TO WELLOW TUNNEL, 20 YARDS TO NORTH WEST OF CHURCH FARM	II
1320472	FORMER AQUEDUCT OVER CAM BROOK AT NGR ST 7575 6050	II

Southampton & Salisbury Canal. Gd II 1

1181681	SOUTHAMPTON AND SALISBURY CANAL, CANAL BRIDGE	II

Staffs & Worcs Canal SM 1 Gd II 24

1039210	STAFFORDSHIRE AND WORCESTERSHIRE CANAL ACTON MOAT BRIDGE	II

1100641	CLAY HOUSE BRIDGE	II
1195329	STAFFORDSHIRE AND WORCESTER CANAL BASWICH CANAL BRIDGE NUMBER 100	II
1201772	DUNSTALL WATER BRIDGE, NO 63	II
1201838	TETTENHALL OLD BRIDGE OVER STAFFORDSHIRE AND WORCESTERSHIRE CANAL	II
1201873	STAFFORDSHIRE AND WORCESTERSHIRE CANAL ALDERSLEY BRIDGE	II
1201874	STAFFORDSHIRE / WORCESTERSHIRE CANAL WIGHTWICK MILL LOCK AND BRIDGE NO 58	II
1208246	STAFFORDSHIRE AND WORCESTERSHIRE CANAL WIGHTWICK LOCK AND BRIDGE NO 57	II
1209441	CANAL BASINS, LOCKS AND WHARVES	II
1209450	CANAL BASINS LOCKS ENGINE BASIN	II
1209471	CANAL MAINTAINENACE YARD WORKSHOP	II
1211073	ST THOMAS CANAL BRIDGE NUMBER 101	II
1232383	STAFFORDSHIRE AND WORCESTERSHIRE CANAL BRIDGE NUMBER 49 (AWBRIDGE BRIDGE) AND ASSOCIATED LOCK	II
1232420	STAFFORDSHIRE AND WORCESTERSHIRE CANAL BRIDGE NUMBER 46 (BUMBLEHOLE BRIDGE) AND ASSOCIATED LOCK	II
1232421	STAFFORDSHIRE AND WORCESTERSHIRE CANAL BRATCH LOCKS, BRIDGE NUMBER 47 (BRATCH BRIDGE) STAFFORDSHIRE AND WORCESTERSHIRE CANAL UPPER BRATCH BRIDGE AND ASSOCIATED TOLL HOUSE	II
1273478	AQUEDUCT WEST OF HOLDIFORD BRIDGE CONVEYING CANAL OVER RIVER	II
1277055	STAFFORDSHIRE AND WORCESTERSHIRE CANAL COTTAGE AT BUMBLEHOLE LOCK	II
1277374	STAFFORDSHIRE AND WORCESHIRE CANAL PAIR OF HOUSES AT STEWPONEY LOCK	II
1289367	STAFFORDSHIRE AND WORCESTER CANAL MEADOW CANAL BRIDGE NUMBER 99	II
1292169	FORMER STABLING FOR TONTINE HOTEL	II
1292376	CANAL MAINTENANCE BUILDINGS AND LOCK COTTAGE	II
1292639	TONTINE BUILDINGS	II
1357559	BRIDGE NUMBER 109 HEYWOOD CANAL JUNCTION (OVER STAFFORDSHIRE AND WORCESTERSHIRE CANAL)	II
1374033	STAFFORDSHIRE AND WORCESTERSHIRE CANAL NUMBER 71 (CROSS GREEN BRIDGE)	II
1374100	STAFFORDSHIRE AND WORCESTERSHIRE CANAL BRIDGE NUMBER 89	II
1393481	WALTON BRIDGE NO 104	II
1393482	MILFORD BRIDGE, NO.105, NORTH OF HOME FARM, MILFORD	II
1411688	Compton Lock, by-weir and Bridge 60	II
1003735	Bridge, towpath and lock on Staffordshire and Worcestershire Canal at Awbridge	SM

Stamford Canal GD II 1

1169487	THE RIVERSIDE CLUB, ST MARY'S HILL (west side) STAMFORD,	II

Stourbridge Canal SM 1 Gd II 8

1116897	STOURBRIDGE CANAL LOCK NUMBER 11	II
1116928	STOURBRIDGE CANAL LOCK NUMBER 10	II
1232007	STOURBRIDGE CANAL PAIR OF LOCKS AT JUNCTION WITH STAFFORDSHIRE AND	

	WORCESTERSHIRE CANAL	II
1232634	TAILBRIDGE, STOURTON LOCK NUMBER 2	II
1232635	STOURBRIDGE CANAL STOURTON LOCK NUMBER 1	II
1251214	STOURBRIDGE CANAL WAREHOUSE	II
1251259	WALLS TO FORMER DRY DOCK	II
1277007	STOURTON LOCK NUMBER 2	II
1319705	STOURBRIDGE CANAL LOCK NUMBER 9	II
1392897	CRANE AT DUDBRIDGE WHARF	II
1021378	The Redhouse, Whitehouse and Newhouse glassworks ??	SM

Stourbridge Extension C. NIL

Stover Canal Gd II 5

1097339	LOCK 100 METRES NORTH NORTH-EAST OF HEARDERS FARMHOUSE	II
1097374	LOCK AT JETTY MARSH	II
1165512	CLAY CELLARS STUDIO	
1308952	FORMER TEIGNBRIDGE CLAY CELLARS AT TEIGNBRIDGE CROSSING	II
1334126	LOCK 350 METRES SOUTH-EAST OF CHURCH OF ST PETER AND ST PAUL	II

Stratford Canal (N & S) SM 2 Gd II* 5 Gd II 55 62

1024550	AQUEDUCT, STRATFORD ON AVON CANAL (THAT PART IN ASTON CANTLOW CP)	II*
1024574	DRAPER BRIDGE, STRATFORD ON AVON CANAL	II
1035064	CANAL BRIDGE NUMBER 44, SOUTH STRATFORD CANAL	II
1035077	BROME HALL BRIDGE (NUMBER 35) STRATFORD UPON AVON CANAL	II
1035078	LOCK KEEPERS COTTAGE BRIDGE NUMBER 32, STRATFORD UPON AVON CANAL	II
1035079	LOCK COTTAGE NUMBER 3, STRATFORD UPON AVON CANAL	II
1035080	LOCK KEEPERS COTTAGE SOUTH WEST OF LOCK 13, STRATFORD UPON AVON CANAL	II
1035081	CANAL OFFICE, NORTH WEST OF LOCK 21, STRATFORD UPON AVON CANAL	II
1035082	ENGINEERING WORKS BUILDING WEST OF LOCK 21, STRATFORD UPON AVON CANAL	II
1035097	LOCK APPROXIMATELY 5 METRES NORTH OF LOWSONFORD BRIDGE	II
1035119	LOCKS 7-14 (CONSECUTIVE) AND NORTHERN BASIN WALLS, AND BRIDGES 32 AND 33, STRATFORD UPON AVON CANAL	II
1035120	LOCK 21, STRATFORD UPON AVON CANAL	II
1184257	NEALS BRIDGE, STRATFORD ON AVON CANAL	II
1184313	SPLIT BRIDGE NORTH OF LOCK 21, STRATFORD UPON AVON CANAL	II
1184553	LOWSONFORD BRIDGE	II
1184559	LOCK COTTAGE APPROXIMATELY 5 METRES NORTH EAST OF LOWSONFORD BRIDGE	II
1184618	YARNINGDALE AQUEDUCT (IN ROWINGTON PARISH) SOUTH STRATFORD CANAL	II*
1246078	BRIDGE NUMBER 19, OVER NORTH STRATFORD CANAL	II
1290690	BRANDWOOD TUNNEL WEST PORTAL, STRATFORD ON AVON CANAL	II
1300204	LOCK KEEPERS COTTAGE SOUTH EAST OF LOCK 21, STRATFORD UPON AVON CANAL	II

1342855	ENGINE HOUSE (PUMPING STATION), EARLSWOOD LAKES	II
1364981	DICKS LANE BRIDGE NUMBER 39, STRATFORD UPON AVON CANAL	II
1365000	LOCK KEEPERS COTTAGE EAST OF LOCK 21 STRATFORD UPON AVON CANAL	II
1365020	LOCK 20, STRATFORD UPON AVON CANAL	II
1382092	CANAL BRIDGE NUMBER 45	II
1382093	LOCK NUMBER 34	II
1382094	YARNINGDALE AQUADUCT (THAT PART IN CLAVERDON CP)	II*
1382159	CANAL BRIDGE NUMBER 46	II
1382160	CANAL BRIDGE NUMBER 48	II
1382161	CANAL BRIDGE NUMBER 49 CANAL BRIDGE NUMBER 49 CLAVERDON	II
1382162	CANAL BRIDGE NUMBER 50	II
1382215	AQUEDUCT AND ATTACHED RAILINGS (THAT PART IN WOOTTON WAWEN CP)	II*
1382216	CANAL BRIDGE NUMBER 51	II
1382217	CANAL BRIDGE NUMBER 52	II
1382218	CANAL BRIDGE NUMBER 53	II
1382220	CANAL BRIDGE NUMBER 55	II
1382221	WOOTTON WAWEN AQUEDUCT	II*
1382767	CANAL BRIDGE NUMBER 61 (THAT PART IN OLD STRATFORD AND DRAYTON CP)	II
1005740	Aqueduct	SM
1005885	Guillotine Lock, Stratford Canal	SM

Stroudwater Nav. Gd II 11

1090516	LOCK AND LOCKGATES CANAL (NORTH WEST SIDE OF GLOUCESTER AND SHARPNESS CANAL, AND IMMEDIATELY WEST OF BRIDGE OVER SAME)	II
1090551	WEIR BETWEEN RIVER FROME AND KEMMETT CANAL	II
1090681	Nutshell Bridge	II
1090682	Nutshell Cottage	II
1172000	RYEFORD BRIDGE	II
1223347	Company Offices, No. 13 Bath Road, Wallbridge, including railings to canal towpath	II
1340669	RYEFORD DOUBLE LOCK	II
1400073	Blunder Lock, spill weir and boundary markers	II
1400205	Newtown Lock, spill weir and boundary markers	II
1400208	Spill Weir in the grounds of Bridge House	II
1400211	Spill Weir	II

Tamar Manure Nav. SM 1 Gd II 1

1329331	ENTRANCE LOCK TO THE TAMAR MANURE NAVIGATION	II
1007302	Canal, lock, island and salmon keeping pond known collectively as the Tamar Canal	SM

Tavistock Canal SM 1 Gd II 4

1105706	QUAY	II

1105707	SOUTH PORTAL TO THE TAVISTOCK CANAL TUNNEL AT NGR 448 702	II
1105729	NORTH PORTAL TO THE TAVISTOCK CANAL TUNNEL AT NGR 460 723	II
1305267	BRIDGE NORTH EAST OF THE NORTH PORTAL TO THE TAVISTOCK CANAL TUNNEL	II
1021461	Morwellham Quay: transport infrastructure, part of the water control system	SM

River Tees — Gd II* 1 Gd II 1

1139845	TRANSPORTER BRIDGE	II*
1393672	VICTORIA BRIDGE	II

River Thames — Gd II 18

1028942	REMAINS OF BRIDGE ON RIVER THAMES TOWPATH (SOUTH BANK)	II
1028968	LANDING STAGE AT SOUTH EAST END OF VIRGINIA WATER	II
1030077	POST NORTH OF THE DESBOROUGH CHANNEL, TOW PATH OF RIVER THAMES	II
1047190	OLD IFFLEY LOCK	II
1047191	ROVING BRIDGE TWENTY YARDS UPSTREAM FROM IFFLEY LOCK	II
1059788	POUND LOCK ON SWIFT DITCH AT SU 5126 9666	II
1250032	FAIRLAWN WHARF BUILDINGS TO REAR OF NUMBERS 44 AND 46	II
1250044	RICHMOND FOOTBRIDGE, LOCK AND SLUICES	II
1254428	BOATHOUSE 2	II
1254429	BOATHOUSE 5 (EASTERNMOST 13 BAYS	II
1261294	BOATHOUSE 1	II
1261295	BOATHOUSE 4	II
1298907	LOCK-KEEPER'S COTTAGE AT PENTON HOOK LODGE)	II
1377503	POST NORTH OF DESBOROUGH CHANNEL AT NGR TQ 0791664	II
1377504	POST AT NGR TQ 11656888, TOW PATH OF RIVER THAMES	II
1393483	STREATLEY PADDLE AND RYMER WEIR	II
1393484	GORING PADDLE AND RYMER WEIR	II
1393485	RUSHEY PADDLE AND RYMER WEIR	II

Thames & Medway C — Gd II 1

1393973	BARRELLED LOCK CHAMBER, SEA WALLS, SWING BRIDGE, LOCKS AND CANAL BASIN	II
1246068	THE OBELISK	II

Thames & Severn — Gd II*1 Gd II 16 17

1023150	MARSTON MEYSEY BRIDGE	II
1023127	THE ROUND HOUSE AND LOCK	II
1089301	SAPPERTON CANAL TUNNEL (SOUTH ENTRANCE) THAMES AND SEVERN CANAL	II*
1089302	TARLTON BRIDGE	II
1089674	NORTH ENTRANCE TO SAPPERTON CANAL TUNNEL	II
1090036	UPPER SIDDINGTON BRIDGE	II
1091154	ILES'S MILL LOCK AND CANAL BRIDGE	II

1091194	WHARF HOUSE AND ADJACENT WORKSHOP	II
1091195	CANAL OVERFLOW WEIR IN GARDEN TO WEST OF CANAL ROUND HOUSE	II
1171394	CANAL ROUND HOUSE	II
1245128	CLOWS BRIDGE	II
1304824	BOURNE LOCK, BRIDGE AND WEIR IMMEDIATELY NORTH OF BOURNE MILLS	II
1340387	WHITEHALL BRIDGE	II
1340654	HAM LOCK, CANAL BRIDGE AND WEIR	II
1341290	WHARF HOUSE (Kempsford)	II
1341291	BRIDGE ON THAMES AND SEVERN CANAL NEXT TO ROUND HOUSE	II
1341353	THAMES AND SEVERN CANAL WALLS BETWEEN TARLTON BRIDGE AND SAPPERTON CANAL TUNNEL, SOUTH ENTRANCE	II

Torrington or Rolle Canal Gd II 3

1104782	AQUEDUCT BRIDGE (THAT PART WITHIN GREAT TORRINGTON BOROUGH)	II
1171230	BEAM BRIDGE (THAT PART IN MONKLEIGH CP)	II
1326555	ANNERY KILN	II

River Trent (& upper) Gd II 5

1067725	KEADBY BRIDGE	II
1076974	SLUICE AT OUTFALL OF WARPING DRAIN INTO THE RIVER TRENT IMMEDIATELY NORTH OF MILLFIELD HOUSE	II
1083227	SLUICE AND ROAD BRIDGE AT OUTFALL OF SNOW SEWER/WARPING DRAIN INTO THE RIVER TRENT	II
1268447	RIVER TRENT NAVIGATION, STOP LOCK,WEST OF TAMWORTH ROAD BRIDGE,SAWLEY	II
1268508	FOOTBRIDGE OVER STREAM APPROXIMATELY 100 METRES SOUTH EAST OF 28 ST HELENS ROAD, TRENT TOWPATH	II
1269021	TRENT NAVIGATION, FOOTBRIDGE OVER DRAIN ON WEST BANK OF RIVER TRENT AT SK 8150 6731	II
1297721	CONCRETE FOOTBRIDGE ACROSS RIVER TRENT,	II*

Trent & Mersey Canal Gd II 172

inc Hall Green Branch

1038428	TRENT AND MERSEY CANAL MILEPOST AT SK 259 260	II
1038450	TRENT AND MERSEY CANAL BRIDGE 36 AT SK 208 194	II
1038558	TRENT AND MERSEY CANAL HARECASTLE TUNNEL PORTALS AND ATTACHED RETAINING WALL	II
1038915	HUNT'S LOCK	II
1038916	BRIDGE NUMBER 51 AND ATTACHED LOCK	II
1051990	VIADUCT OVER TRENT AND MERSEY CANAL AT SK 0485 1780	II
1051991	TRENT AND MERSEY CANAL MILEPOST AT SJ 9368 2953	II
1051992	TRENT AND MERSEY CANAL BRIDGE NUMBER 99 AT SJ 8914 3588	II

1051993	TRENT AND MERSEY CANAL MILEPOST AT SJ 8860 3883	II
1051996	TRENT AND MERSEY CANAL BRIDGE NUMBER 37 OFF LICHFIELD ROAD AT SK 2057 1877	II
1057648	CANAL BRIDGE AT OS 321300	II
1064773	CANAL MILEPOST EAST OF BRIDGE NUMBER 44 AT SK 1826 1610 ON NORTH SIDE OF TRENT AND MERSEY CANAL	II
1064774	CANAL MILEPOST AT SK 2089 1970	II
1067610	TRENT AND MERSEY CANAL BRIDGE AT SJ 7950 5794	II
1074924	TRENT AND MERSEY CANAL BRIDGE NUMBER 136 AT SJ 8187 5602	II
1074927	TRENT AND MERSEY CANAL MALKIN'S BANK LOCK NUMBER 63	II
1088348	TRENT AND MERSEY CANAL SWARKESTONE LOCK AND BRIDGE	II
1088350	TRENT AND MERSEY CANAL, CANAL MILEPOST TO SOUTH OF MASSEY'S BRIDGE AT SK 381 284	II
1088351	TRENT AND MERSEY CANAL, CANAL MILEPOST NEAR WESTON LOCK AT SK 407 277	II
1088357	TRENT AND MERSEY CANAL, CANAL MILEPOST WEST OF HICKENS BRIDGE AT SK 429 298	II
1088364	OLD SALT WAREHOUSE TO NORTH EAST OF TRENT MILL NUMBER 2	II
1088369	NUMBER 1 STORE ATTACHED TO WEST SIDE OF NUMBER 139 LONDON ROAD	II
1088371	TRENT CORN MILL NUMBER 1	II
1088372	IVY HOUSE	II
1088373	No name for this Entry	II
1088374	TRENT AND MERSEY CANAL DERWENT MOUTH LOCK	II
1096522	CANAL BRIDGE AT OS 279 279	II
1096525	CANAL AQUADUCT AT OS 268 269	II
1096882	TRENT AND MERSEY CANAL DEEP DALE BRIDGE NUMBER 17 AT SK 3485 2923	II
1104925	PRESTON BROOK TUNNEL ENTRANCE	II
1130331	TRENT AND MERSEY CANAL LOCK HOUSE	II
1130435	NORTHERN AIR SHAFT TO PRESTON BROOK TUNNEL	II
1115471	TRENT AND MERSEY CANAL DUTTON DOCK	II
1115485	TRENT AND MERSEY CANAL CANAL MILEPOST AT NGR 590 775	II
1115506	TRENT AND MERSEY CANAL STOP LOCK KEEPER'S COTTAGE	II
1115837	TRENT AND MERSEY CANAL CANAL MILEPOST SOUTH OF NORTH ENTRANCE TO PRESTON BROOK TUNNEL AT SJ 5705 7987	II
1115839	TRENT AND MERSEY CANAL BRIDGE NUMBER 157 AT SJ 7387 5938	II
1115841	TRENT AND MERSEY CANAL BRIDGE NUMBER 137 (HALL'S BRIDGE) AT SJ 8159 5622	II
1115842	TRENT AND MERSEY CANAL LOCK NUMBER 49 (HALLâ€™S LOCK) at SJ 81602 56211	II
1115843	TRENT AND MERSEY CANAL MILEPOST AT SJ79665797	II
1115843	TRENT AND MERSEY CANAL MILEPOST AT SJ79665797	II
1115844	TRENT AND MERSEY CANAL BRIDGE NUMBER 149 AT SJ 7685 5888	II
1115845	TRENT AND MERSEY CANAL LOCK NUMBER 60 AT SJ 7687 5887	II
1116594	TRENT LANE CANAL BRIDGE	II
1130330	LOCK NO 66	II

1135995	DANE FEEDER COTTAGE	II
1138765	MILEPOST ADJACENT TO LOCKS 47, CHURCH LAWTON TOP LOCK	II
1138767	TRENT AND MERSEY CANAL LOCK NUMBER 67	II
1138768	TRENT AND MERSEY CANAL, CANAL MILESTONE SOUTH OF BRIDGE NUMBER161	II
1138791	CANAL STABLES AND SAWPIT HOUSE	II
1138803	TRENT AND MERSEY CANAL, THREE LOCKS AND TWO INTERMEDIATE BASINS, WITH DRY DOCK OFF UPPER BASIN	II
1138804	TRENT AND MERSEY CANAL, CANAL MILEPOST AT NGR 7064 6585	II
1138805	TRENT AND MERSEY CANAL KING'S LOCK	II
1138809	TRENT AND MERSEY CANAL LOCK NUMBER 68 AND ACCOMMODATION BRIDGE	II
1139095	MILEPOST AT NGR 6492 7563	II
1139145	TRENT AND MERSEY CANAL DUTTON STOP LOCK	II
1139146	TRENT AND MERSEY CANAL CANAL MILEPOST AT NGR 578 683	II
1139147	TRENT AND MERSEY CANAL BRIDGE NUMBER 211	II
1161723	BRIDGE NO 146	II
1178100	BRIDGE NUMBER 50 AND KEEPER'S LOCK	II
1178109	MIDDLE LOCK	II
1188519	TRENT AND MERSEY CANAL MILEPOST OPPOSITE HARECASTLE TUNNEL PORTALS	II
1188525	TRENT AND MERSEY CANAL BRIDGE OVER MACCLESFIELD CANAL	II
1196714	TRENT AND MERSEY CANAL LIMEKILN LOCK	II
1196715	TRENT AND MERSEY CANAL WORKHOUSE BRIDGE NUMBER 94	II
1205245	NUMBER 2 STORE	II
1205265	DOBSONS CHANDLERY WAREHOUSE ADJACENT TO NUMBERS 20 AND 22 THE WHARF	II
1205270	NUMBER 3 MILL	II
1205308	THE FIRS	II
1205318	No name for this Entry	II
1205342	TRENT AND MERSEY CANAL PORTER'S BRIDGE AT SK 452 305	II
1205689	TRENT AND MERSEY CANAL LOWES BRIDGE	II
1205708	TRENT AND MERSEY CANAL, CANAL MILEPOST AT SWARKESTONE STOP SK 368 291	II
1205726	TRENT AND MERSEY CANAL OUTBUILDING TO EAST OF CANAL TOLL HOUSE AT SWARKESTONE STOP	II
1205858	TRENT AND MERSEY CANAL WESTON LOCK	II
1205892	TRENT AND MERSEY CANAL SCOTCH BRIDGE	II
1210692	TRENT AND MERSEY CANAL HARECASTLE TUNNEL PORTALS AND ATTACHED RETAINING WALLS	II
1210701	TRENT AND MERSEY CANAL LODGE AT HARECASTLE TUNNEL	II
1216526	TRENT AND MERSEY CANAL EASTERN ENTRANCE TO THE SALTERSFORD TUNNEL	II
1216659	TRENT AND MERSEY CANAL MILEPOST ON TOWPATH ABOVE THE SALTERFORD TUNNEL	II
1219407	TRENT AND MERSEY CANAL STAR LOCK	II
1219421	TRENT AND MERSEY CANAL YARD LOCK	II

1227726	TRENT AND MERSEY CANAL WESTERN ENTRANCE TO THE SALTERSFORD TUNNEL	II
1228368	BARLEY MEADOW BRIDGE (CANAL BRIDGE NUMBER 206)	II
1228370	TRENT AND MERSEY CANAL WILLOWGREEN BRIDGE (CANAL BRIDGE NUMBER 208)	II
1229624	TRENT AND MERSEY CANAL, BIG LOCK AND FOOTBRIDGE	II
1229629	TRENT AND MERSEY CANAL, HOUSE AND ATTACHED CANAL OFFICE	II
1229638	TRENT AND MERSEY CANAL, CANAL MILEPOST IMMEDIATELY NORTH OF RUMPS LOCK	II
1237274	TRENT AND MERSEY CANAL GASKELL'S BRIDGE NUMBER 46 AT SK 1699	II
1240240	TRENT AND MERSEY CANAL MILEPOST AT ASTON LOCK AT SJ 9165 3192	II
1240243	TRENT AND MERSEY CANAL MEAFORDHALL FARM BRIDGE NUMBER 102 SJ 8873 3750	II
1240248	TRENT AND MERSEY CANAL MILEPOST AT SJ 9493 2888	II
1240249	TRENT AND MERSEY CANAL MILEPOST AT SJ 9294 3073	II
1240270	TRENT AND MERSEY CANAL, MALKIN'S BANK BRIDGE NUMBER 151	II
1242003	TRENT AND MERSEY CANAL MILEPOST AT LOCK NUMBER 37 AT SJ 8743 4610	II
1242004	TRENT AND MERSEY CANAL MILEPOST SOUTH OF FORMER VIADUCT AT SIDEWAY AT SJ 8802 4319	II
1242005	TRENT AND MERSEY CANAL MILEPOST NORTH OF LONGTON ROAD AT SJ 8800 4165	II
1243210	TRENT AND MERSEY CANAL COLWICH BRIDGE NUMBER 71	II
1243211	TRENT AND MERSEY CANAL COLWICH LOCK COTTAGE PRIVY	II
1243212	TRENT AND MERSEY CANAL COLWICH LOCK NUMBER 21	II
1243215	TRENT AND MERSEY CANAL MIDDLE BRIDGE NUMBER75 AT SJ 9948 2341	II
1243216	TRENT AND MERSEY CANAL HOOMILL BRIDGE NUMBER 76 AT SJ 9973 2410	II
1243217	TRENT AND MERSEY CANAL, CANAL MILEPOST NORTH OF HOOMILL LOCK SJ 9976 2417	II
1243218	TRENT AND MERSEY CANAL PASTUREFIELDS BRIDGE NUMBER 77 AT SJ 9941 2476	II
1244328	TRENT AND MERSEY CANAL AIRSHAFT ABOVE BARNTON TUNNEL, OFF OAKWOOD LANE AT SJ 6319 7482	II
1244329	TRENT AND MERSEY CANAL, CANAL MILEPOST SOUTH EAST OF BRIDGE NUMBER 206 AT SJ 61017538	II
1244513	TRENT AND MERSEY CANAL MILEPOST AT SJ 6828 7293	II
1244514	TRENT AND MERSEY CANAL MILEPOST AT SJ 6805 6928	II
1244515	TRENT AND MERSEY CANAL MILEPOST AT SJ6832 7024	II
1244547	TRENT AND MERSEY CANAL MILEPOST NORTH OF BRIDGE NUMBER 192 SJ 6750 7528	II
1248258	BRIDGE NUMBER 64 OFF ARMITAGE ROAD AT SK 0537 1708	II
1248666	TRENT AND MERSEY CANAL BRIDGE NUMBER 53 WOODEND LOCK	II
1249245	TRENT AND MERSEY CANAL MILEPOST AT SK 1291 1335	II
1252738	TRENT AND MERSEY CANAL WESTERN ENTRANCE TO THE BARNTON TUNNEL	II
1252855	TRENT AND MERSEY CANAL, CANAL MILEPOST OFF A38 AT SK 1939 1722	II
1252867	TRENT AND MERSEY CANAL, CANAL MILEPOST AT SK 2033 1848	II
1252868	TRENT AND MERSEY CANAL MILL BRIDGE NUMBER 39, OFF LICHIELD ROAD (A38) AT SK 1914 1737	II
1253366	TRENT AND MERSEY CANAL MILEPOST AT SK 2267 2260	II

1258042	SALT BRIDGE (OVER TRENT AND MERSEY CANAL)	II
1260225	TRENT AND MERSEY CANAL MILEPOST NORTH OF LIMEKILN BRIDGE NUMBER 105 AT SJ 8815 4010	II
1260226	TRENT AND MERSEY CANAL MILEPOST AT SJ 88114472	II
1261831	TRENT AND MERSEY CANAL MILEPOST OFF SHOBNALL STREET AT SK 2363 2385	II
1261904	TRENT AND MERSEY CANAL SOUTH PORTAL OF PRESTON BROOK TUNNEL	II
1277567	TRENT AND MERSEY CANAL BRIDGE NUMBER 59 AT SK 0786 1642	II
1278947	TRENT AND MERSEY CANAL LOCK NUMBER 69	II
1278980	TRENT AND MERSEY CANAL BRIDGE NUMBER 167	II
1280316	TRENT AND MERSEY CANAL, CANAL MILEPOST TO EAST WESTON GRANGE SK 420 286	II
1280464	TRENT AND MERSEY CANAL, CANAL MILEPOST AT SK 392 274	II
1287192	TRENT AND MERSEY CANAL CANAL AQUEDUCT NUMBER 205	II
1287612	TRENT AND MERSEY CANAL EASTERN ENTRANCE TO THE BARNTON TUNNEL	II
1290817	FORMER WAREHOUSE AT LONGPORT WHARF	II
1293439	TRENT AND MERSEY CANAL BRIDGE 43	II
1293826	CANAL MILEPOST AT SK 217 212, 10M SOUTH OF BRIDGE 34 (EAST SIDE)	II
1295214	WHARF HOUSE (Fradley Junction)	II
1297476	4 BARGE DOCKS AT THE BOATYARD	II
1297501	FORMER WAREHOUSE ADJOINING TRENT AND MERSEY CANAL	II
1297503	TRENT AND MERSEY CANAL NEWCASTLE ROAD BRIDGE AND LOCK	II
1297945	TRENT AND MERSEY CANAL MILEPOST OUTSIDE HARECASTLE TUNNEL PORTALS	II
1309961	MILEPOST TO NORTH OF CANAL AND RIVER TRUST OFFICES, RED BULL WHARF AT SJ 82754 55084	II
1309982	BRIDGE NO 148	II
1320255	BRIDGE NO 74 AT SJ 660 411	II
1320256	BENNETTS BRIDGE (NO 80) AT SJ 652 452	II
1320411	TRENT AND MERSEY CANAL BRIDGE NUMBER 210	II
1329862	TRENT AND MERSEY CANAL CANAL MILEPOST AT NGR 602 765	II
1329882	MILEPOST AT NGR 685734	II
1329993	TRENT AND MERSEY CANAL BRIDGE NUMBER 614	II
1330012	TRENT AND MERSEY CANAL BRIDGE NUMBER 162	II
1330013	TRENT AND MERSEY CANAL, CANAL MILESTONE AT NGR 7322 6056	II
1330029	TRENT AND MERSEY CANAL, CANAL MILEPOST AT NGR 698 670	II
1330030	TRENT AND MERSEY CANAL BRIDGE NUMBER 168	II
1330031	TRENT AND MERSEY CANAL RUMPS LOCK	II
1330422	DOUBLE BRIDGE AT LOCK NO 66, TRENT AND MERSEY CANAL	II
1330423	LOCK NO 65, TRENT AND MERSEY CANAL	II
1334564	STENSON LOCK AND ATTACHED BRIDGE TO EAST	II
1334568	HIGH BRIDGE	II
1334603	TRENT AND MERSEY CANAL ASTON LOCK AND ASTON LOCK BRIDGE	II

1334638	TRENT AND MERSEY CANAL, CANAL MILEPOST ON OPPOSITE SIDE OF CANAL TO IVY HOUSE AT SK 443 303	II
1334639	No name for this Entry	II
1334640	FORMER IRON WAREHOUSE SOUTH OF NUMBERS 40 AND 42 THE WHARF	II
1334641	CANAL BUILDING TO SOUTH OF 47 THE WHARF	II
1334666	TRENT AND MERSEY CANAL, CANAL TOLL HOUSE AT SWARKESTONE STOP	II
1334667	TRENT AND MERSEY CANAL BRIDGE AT WESTON LOCK	II
1334669	TRENT AND MERSEY CANAL SARSON'S BRIDGE	II
1334673	TRENT CORN MILLS	II
1360964	TRENT AND MERSEY CANAL, CHURCH LOCKS NUMBER 48	II
1373925	TRENT AND MERSEY CANAL BRIDGE NUMBER 60 AT SK079 164	II
1374199	CANAL MILE POST 22 YARDS TO NORTH OF TOP LOCK BRIDGE (CANAL BRIDGE 98)	II
1374236	Turnover Bridge (canal bridge number 100) circa 500m to north-west of Meaford Farm	II
1374250	WORKSHOPS APPROXIMATELY 250 YARDS EAST OF THE SWAN	II
1374251	BRIDGE NUMBER 52 AND SHADE HOUSE LOCK	II
1374428	WHARF HOUSE (Barton-under-Needwood)	II

Ulverston Canal Gd II 2

1374971	CANAL BASIN AND PIER ON SEAWARD END OF ULVERSTON CANAL,CANAL FOOT	II
1404328	ROLLING BRIDGE OVER ULVERSTON CANAL AND ASSOCIATED ACCUMULATOR TOWER	II

Waltham Abbey RGW SM 1

1016618	Waltham Abbey Royal Gunpowder Factory	SM

River Weaver SM 1 Gd II 27

1011152	Anderton Boat Lift, aqueduct, basins, meter building, toll houses and buried remains of salt chutes, inclined planes, the east basin and dockside features	SM
1138433	LOCK KEEPER'S COTTAGE AT VALE ROYAL LOCKS	II
1139034	WEAVER NAVIGATION DUTTON LOCKS	II
1139112	BRITISH WATERWAYS BOARD AREA OFFICE	II
1139113	WEIR EAST OF HUNT'S LOCK, WITH FOOTBRIDGE	II
1139138	HORSE BRIDGE OVER RIVER 250 METRES SOUTH WEST OF DUTTON LOCK	II
1139183	SMALL LOCK, LOCK GATES AND SWING BRIDGE, VALE ROYAL LOCKS	II
1139184	FLOOD GATES AND SLUICE BRIDGE	II
1160603	SMALL LOCK, VALE ROYAL LOCKS, LOCK GATES AND SWING-BRIDGE	II
1160887	BOUNDARY POST	II
1160896	SLUICE, CHANNEL AND SLUICE A SWING-BRIDGES AT VALE ROYAL LOCKS	II
1161109	CLOCK TOWER BETWEEN BRITISH WATERWAYS BOARD OFFICE AND RIVER WEAVER	II
1216524	DUTTON LOCKS	II
1227727	WEAVER NAVIGATION SALTERSFORD LOCKS	II
1240207	NAVIGATION HOUSE	II

1253445	FRODSHAM WEIR WITH SLUICE GATES	II
1261148	STABLE BLOCK WITH ATTACHED OUTBUILDINGS GATEWAY AT NAVIGATION HOUSE	II
1261700	BOATMAN'S SHELTER ON EAST BANK OF WEAVER NAVIGATION	II
1261908	FRODSHAM LOCK AND WEIR	II
1271140	CHRIST CHURCH AND CHURCHYARD RAILINGS WESTON POINT	II
1287231	WEAVER NAVIGATION VALE ROYAL RAILWAY VIADUCT	II
1287506	TOLLHOUSE AT SALTERSFORD LOCKS	
1310242	HUNT'S LOCKS	II
1310259	HAYHURST BRIDGE OVER WEAVER NAVIGATION, AND CONTROL CABIN	II
1329860	DUTTON SLUICE 150 METRES NORTH EAST OF DUTTON LOCK	II
1329879	TOWN BRIDGE OVER WEAVER NAVIGATION, AND CONTROL CABIN	II
1330209	LOCK, LOCK GATES AND SWING-BRIDGE, FORMING LARGE LOCK, VALE ROYAL	II
1391406	WINNINGTON TURN BRIDGE	II

Wey & Arun Junction C — Gd II 1

1294261	FAST BRIDGE OVER THE WEY AND ARUN CANAL	II

Wey & Godalming Navigations — Gd II 4

1377866	THE TREADWHEEL CRANE	II*

Wilts & Berks Canal — Gd II 4

inc North Wilts Canal

1198134	MOREDON AQUEDUCT	II
1252169	CANAL BRIDGE, STATION ROAD,SHRIVENHAM	II
1355880	CANAL BRIDGE, 300 METRES NORTH EAST OF THE COUNTY, OR MAGIC ROUNDABOUT	II
1363752	CANAL COTTAGES	II

Wisbech Canal — NIL

Worcester & Birmingham Canal — Gd II* 1 Gd II 69 — 70

1076185	TUNNEL COTTAGES WASTHILL	II
1076290	KINGS NORTON GUILLOTINE STOP LOCK EAST OF JUNCTION OF STRATFORD ON AVON CANAL WITH THE WORCESTER AND BIRMINGHAM CANAL	II*
1076291	ROVING BRIDGE OVER WORCESTER AND BIRMINGHAM CANAL AT JUNCTION WITH THE STRATFORD ON AVON CANAL	II
1076303	HOLLIDAY STREET CANAL AQUEDUCT	II
1078238	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 58 INCLUDING SIDE POND RETAINING WALL AND SLUICE IMMEDIATELY SOUTH	II
1078239	WORCESTER AND BIRMINGHAM CANAL, LOCK COTTAGE AT LOCK 58, TARDEBIGGE	II
1081181	LAKE BRIDGE NO 29	II
1081182	DUNHAMPSTEAD BRIDGE NO 30	II

1081194	OFFERTON BRIDGE LOCK	II
1081201	SUMMERHILL FARM BRIDGE NO 38	II
1081202	ASTWOOD LANE BRIDGE NUMBER 40	II
1081242	WESTFIELD FARM BRIDGE NO 36	II
1081248	HAMMONDS BRIDGE NO 32	II
1081249	COFFIN BRIDGE NO 34	II
1100172	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 57	II
1100173	WORCESTER AND BIRMINGHAM CANAL, BRIDGE NUMBER 55	II
1100187	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 29	II
1100188	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 31	II
1100189	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 35	II
1100190	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 38	II
1100191	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 40	II
1100192	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 43	II
1100193	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 46	II
1100194	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 48	II
1100195	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 50	II
1100196	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 54	II
1167835	WORCESTER AND BIRMINGHAM CANAL, STOKE POUND BRIDGE (NUMBER 48)	II
1167843	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 30	II
1167851	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 32	II
1167855	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 34	II
1167858	WORCESTER AND BIRMINGHAM CANAL, CANAL BRIDGE NUMBER 50 (BETWEEN LOCKS 35 AND 36)	II
1167861	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 37	II
1167865	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 42	II
1167867	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 45	II
1167869	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 47	II
1167870	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 49	II
1167871	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 51	II
1167879	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 53	II
1167980	OFFERTON BRIDGE, NO 24	II
1168072	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 56	II
1168077	WORCESTER AND BIRMINGHAM CANAL, THE OLD ENGINE HOUSE	II
1168084	WORKSHOPS ABOUT 75 METRES SOUTH WEST OF TARDEBIGGE TUNNEL	II
1215147	ASTWOOD BRIDGE NUMBER 41 ASTWOOD BRIDGE WORCESTER AND BIRMINGHAM CANAL	II
1263820	WORCESTER AND BIRMINGHAM CANAL, CANAL BRIDGE ABOUT 100 METRES WEST SOUTH WEST OF LOCK 58	II
1291474	CANAL HOUSE AT JUNCTION OF WORCESTER AND BIRMINGHAM CANAL	

	WITH THE STRATFORD ON AVON CANAL	II
1296703	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 39	II
1296706	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 44	II
1297001	BRIDGE OVER BIRMINGHAM AND WORCESTER CANAL (NUMBER 69) WORCESTER AND BIRMINGHAM CANAL, BRIDGE AT LEA END LANE	II
1301686	TIBBERTON BRIDGE NO 25	II
1343141	ENTRANCE TO WASTHILL TUNNEL WORCESTER AND BIRMINGHAM CANAL	II
1348555	WORCESTER AND BIRMINGHAM CANAL, CANAL BRIDGE NUMBER 49 (BETWEEN LOCK NUMBERS 30 AND 31)	II
1348556	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 33	II
1348557	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 36	II
1348558	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 41	II
1348559	WORCESTER AND BIRMINGHAM CANAL, CANAL BRIDGE (BETWEEN LOCKS 44 AND 45)	II
1348560	WORCESTER AND BIRMINGHAM CANAL, CANAL BRIDGE (BETWEEN LOCKS 49 AND 50)	II
1348561	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 52	II
1348588	WORCESTER AND BIRMINGHAM CANAL, LOCK NUMBER 55	II
1348589	WORCESTER AND BIRMINGHAM CANAL, SOUTH PORTAL OF THE TARDEBIGGE TUNNEL	II
1350132	HADZOR BRIDGE NO 33	II
1389765	BARGE LOCK NO 1 ADJACENT TO RIVER SEVERN	II
1389766	BARGE LOCK NO 2	II
1389767	LOCK COTTAGE ADJACENT TO BARGE LOCK NO 2	II
1389768	LOCK COTTAGES (Diglis Island)	II
1389769	WORKSHOPS ON DIGLIS ISLAND, RIVER SEVERN	II

Worsley Underground (see Bridgewater Canal)

Wye & Lugg **Gd II 1**

1348710	LOCK ON RIVER LUGG TOWARD CONFLUENCE WITH WYE, NGR SO569375	II

TOTAL NHLE ENTRIES: 2660

73 entries were Scheduled Monuments (SM), 10 Grade 1, 54 Grade II * and 2523 Grade II. Many of the entries covered several like structures (eg the 16 Caen Hill locks in one entry) and therefore the total number of individual designated assets is considerably greater.

APPENDIX C

Canal Reservoirs

Kindly provided by:
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2008

Synopsis:

This paper considers the development of canal reservoirs in Great Britain from a historical perspective and reflects how they developed in the light of changing requirements and engineering advances. Ninety-one reservoirs, with an average age of 205 years, remain the responsibility of British Waterways. There are many more which have found other uses or been discontinued.

Until the late 18th century, inland navigation was based around estuaries and river systems. Navigation was affected by flood and drought, but was improved by the construction of weirs and locks. It was once thought that around 1200, Godfrey Lucy, Bishop of Winchester had built a reservoir, Old Alresford Pond, to regulate flows to assist navigation on the River Itchen in Hampshire. It is now thought it was a fishpond.[1]

The industrial revolution required the movement of coal and raw materials to manufacturing districts and the provision of arteries for trade. This need was met by the construction of canals. One of the first, the St. Helens Canal was opened in 1757. It was 9 miles (14 km) long and connected St. Helens with the Mersey estuary. The canal was parallel with the Sankey Brook and drew its water supplies from that source. It was above the flood plain so navigation was able to continue unobstructed by high river flows and the conflicts between navigation interests and water mills were correspondingly much reduced.

Transport routes did not necessarily follow natural water courses. The Bridgewater Canal, also in South Lancashire, having first been envisaged as a canalisation of a brook to the navigable River Irwell, was constructed as a direct link from the coalfields at Worsley to the markets at Manchester, independent of natural watercourses and crossing the Irwell on an aqueduct at Barton. The canal, which was 7 miles long, opened to traffic in 1761. Initially there ware no locks and the water supply was from mines drainage. Numerous canals were built in the next few decades with the peak year for construction being 1794 during the 1790s 'canal mania'. Canals such as the Trent & Mersey, which is 93.5 miles (150 km) long, crossed watersheds, rising to a summit level by means of numerous locks, which required copious quantities of water for their operation.

The early canal promoters optimistically thought that they could collect sufficient water by tapping streams and by on line storage in deepened summit levels. The Trent & Mersey was at first reliant on drainage of ground water from the summit tunnel at Harecastle and it was 13 years after the canal opened in 1777 that its first reservoir, Rudyard, was completed by Sir John Rennie (1761-1821).

Later canals such as the Birmingham and Liverpool Junction included reservoirs from the start, Belvide and Knighton Reservoirs being completed in 1832/3.

The earliest example of a canal reservoir is Seeswood Pool on the former Newdigate Canal near Nuneaton in Warwickshire[2]. It dates from 1764 and is extant but no longer used for canal purposes. The oldest still in use is Townhead Reservoir, completed in 1773, on the Forth & Clyde Canal near Kilsyth (Photo 1)

Photograph 1: Townhead Reservoir, showing the auxiliary spillway of 1934

Many canal reservoirs were built in the late 18th and early 19th centuries. Figure 1 illustrates the rate of construction based on data from British Waterways' present portfolio. The peak of construction was between 1810 and 1820. Twenty one reservoirs constructed in this period remain in use. The most recent canal reservoirs, Loch na Bric and Daill Loch were built in 1930 to improve supplies to the Crinan Canal, 39 years after the completion of the last 19th century canal reservoir, Winterburn, on the Leeds & Liverpool Canal. Loch na Bric is the only canal reservoir with a concrete buttress dam (Photo 2), the remainder being embankment dams.

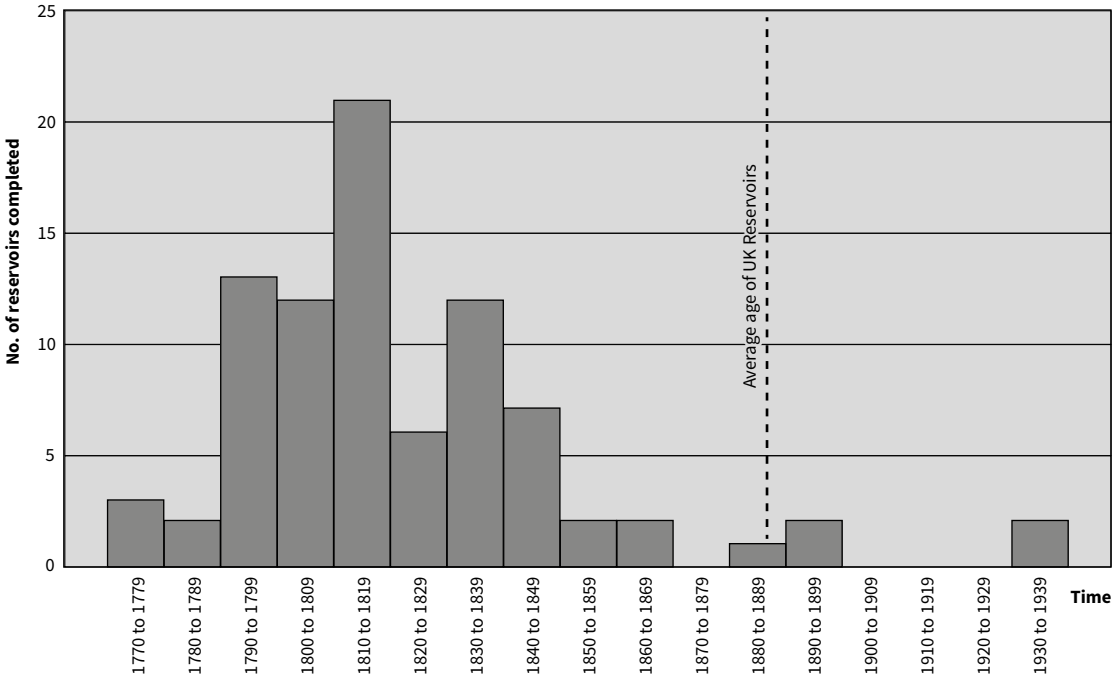

Figure 1 Age profile of British Waterways reservoirs

Photograph 2: Loch na Bric – concrete buttress dam

There was no precedent for the construction of major earthworks in the UK in the late 18th century. In canal construction, the early engineers followed the contour, avoiding embankment and 'deep cutting' wherever possible. There was no scientific understanding of soil properties and no mechanical plant or heavy transport available.

Francis Egerton, 3rd Duke of Bridgewater (1736-1803), the promoter of the Bridgewater Canal would have been familiar with artificially constructed ornamental lakes on country estates. On his Grand Tour he had seen the Languedoc Canal in France. This was supplied with water by the St Ferreol Reservoir which had been constructed between 1667 and 1671 by Pierre Paul Riquet(1609-1680).[3]

James Brindley (1716-1772), his engineer and the first engineer to tackle canal construction on a large scale, was a millwright before he became a canal engineer.[4] His precedents were the construction of mill ponds and feeder channels.

The first canal reservoirs had embankments of whatever material could be won locally, placed without any attempt at zoning. Whilst clays would have been used where available, the headbank of Cofton Reservoir in Worcestershire was built of sand [5] and some Scottish reservoir embankments were of peat. Certain reservoirs suffered from excessive leakage as a result. Smethwick Great Pool of 1771 on the Birmingham Canal never satisfactorily held water and was abandoned after the construction of Rotton Park Reservoir in 1826. Skempton[6] suggests that the first dam with a central core of puddle clay may have been Butterley on the Cromford Canal in Derbyshire.

Little or no attempt was made to excavate cut-off trenches to impermeable strata. The topsoil was not even removed from beneath the dam of Hillend Reservoir (1798) in the Scottish Lowlands.[7] The section of Rotton Park Reservoir (1828) in the Telford Atlas [8], shows not only a puddle clay core but also a shallow cut-off trench. A puddle trench 39 ft (12 m) deep was needed during the construction of Knypersley Reservoir in 1825. [2] It was never possible to fill Knighton Reservoir in Shropshire because of leakage through the faulted sandstone on which it was built.

Ornamental lakes needed draw-offs for maintenance purposes only, millponds were of modest size. Canal reservoirs were on a much bigger scale and needed outlets which would enable a controlled outflow to be provided to feed the canal. The system commonly adopted was to lay a jointed cast iron pipe in a trench in natural ground and construct the dam above it. A valve at the downstream end of the pipe was used to control the flow. This arrangement has many drawbacks including movement of the pipe due to settlement and spread of the fill above. The pipe contains water under reservoir head and any faults in the pipe could lead to leakage and erosion of the embankment material. After the 1864 Dale Dyke failure, Sir Robert Rawlinson (1810-1898) declared that *"no waterworks embankment should have a pipeline laid in such a way as to preclude inspection, repair and renewal"* and that the valves should give "*provision ... for closing the pipes inside the reservoir*" [9]. In 1797 a buried pipeline at Slaithwaite Reservoir on the Huddersfield Narrow Canal collapsed under the weight of 21m of fill.[2] A masonry tunnel under the dam with a central masonry bulkhead pierced by a short length of pipe with a valve was substituted to address the problem. This layout was copied on other early 19th century reservoirs. Later reservoirs were provided with upstream valves and the final dams, such as Upper Foulridge (1866) and Winterburn, completed in 1891 by Henry Rofe and Edward Filliter, had waterworks type upstream valve towers from the start. Most

old draw-off systems have been upgraded over the years to improve the safety of the reservoir.

Whilst most canal supply was by gravity, some reservoirs such as Wilstone (1803) and Earlswood (1815) had steam pumping stations to lift the water to the necessary height. Rotton Park and Cannock Chase Reservoirs, which supply the Birmingham Canal Navigations, had steam plant on standby to transfer surplus water from the canal to the reservoir in times of heavy rainfall.

The operators of water mills had a vested interest in river flows and the canal builders had to reach agreement about compensation flows. This was usually dealt with during the discussion stages of the Parliamentary Acts which authorised construction. Under its 1791 Act, the Worcester & Birmingham Canal Co. had to build five reservoirs, Cofton, Lower Bittell, Wychall, Harborne and Lifford for the sole use of water mills.[5] The magnitude of floods was not comprehended in the late 18th century. Spillways were small and freeboard low. Commonly, there was a small weir at one end of the dam with a masonry channel to conduct surplus water away. Stop planks were often used to store additional water above weir level, for example at Lower Gailey (1855), further compromising freeboard. Sometimes no spillway was provided, reliance being placed on bypass channels to carry storm water around the reservoir.

Earlswood Reservoirs were built in 1815 but were not provided with spillways until 1987. A few reservoirs such as Lower Bittell (1811) and Barrowford (1885) were built with drop-shaft spillways.

Protection against wave erosion of the upstream faces of the dams was provided in most cases by hand-laid stone pitching. Photo 3 shows the pitching at Rishton Reservoir in Lancashire. Headbanks were often raised to provide additional storage and sometimes a near vertical brick wall was built to protect the upstream face and retain the earthworks which were extended on the downstream side only. An example is Belvide Reservoir, initially completed in 1833. In 1834 the decision was taken to raise it by a metre and in 1836 William Cubitt (1785-1861) was instructed to raise it by 4 m. The resulting brick wall is over 1 km long.

Photograph 3: Pitching at Rishton Reservoir

In order to collect additional water, streams in adjacent catchments were often intercepted and carried by feeder channels to the reservoir. Bosley Reservoir on the Macclesfield Canal has 8km of feeders from these indirect catchments. There were tunnels on some feeders such as that to Rotton Park Reservoir, where the indirect catchment area is five times larger than the area draining naturally to the reservoir.

The quality of construction of early reservoirs was often not very good. The Huddersfield Canal's first engineer, Nicholas Brown was inexperienced and was dismissed in 1797. Robert Whitworth then reported the *"masonry & earthworks* (were the) *worst he had ever seen"*. [2] Brown's successor resigned in 1801 to be replaced by John Rooth who noted that *"not one reservoir out of five would hold water, all pipes that had been laid to draw-off the water being broken in the middle of the banks"*.

Construction problems also occurred under such eminent engineers as Thomas Telford. During the construction of Knypersley Reservoir, an existing mill pond occupying the site had to be kept operational until a new mill could be built. To allow this, the draw-off system was laid within the embankment fill rather than in firm ground. The reservoir was filled for the first time in December 1827 but a month later, the pipe had broken and stones from the eroded embankment fill prevented the valves from closing. The reservoir was drained and an exploratory shaft was sunk. It was discovered that the upstream culvert was cracked and the cast iron pipes through the core were displaced. Despite repairs leakage continued and the situation was not finally resolved until 1868 when the system was remodelled and a wet well with valves was sunk in the upstream face.[2]

Constructional difficulties and design inadequacies led to a number of failures in the early years. Diggle Reservoir on the Huddersfield Narrow Canal was built with

an inadequate spillway and was overtopped and breached in 1799. It was rebuilt in 1803 but was again damaged by floods in 1806. It was eventually rebuilt in 1830 but the stream was allowed to flow past the reservoir rather than through it (Photo 4). There was a cascade failure on the Crinan Canal in 1859. Cam Loch, was overtopped and breached. The resulting flood carried away Loch Clachaig and the Gleann Loch further down the valley. There was extensive destruction but no fatalities. When the Cam Loch dam was rebuilt, stone pitching was applied to the crest, upstream and downstream faces to resist erosion should there be a recurrence.

Photograph 4: Diggle Reservoir

Swellands (Swillers Moss) Reservoir on the Huddersfield Narrow Canal failed on 29 Nov 1810 due to erosion caused by under-seepage through a layer of peat. The resulting 'Black Flood' killed five people.

The worst failure in terms of loss of life was at Cwm Carn(e) Reservoir on the Monmouthshire Canal on 14 July 1875. The dam had settled due to consolidation of the fill after construction such that flood water flowed over the crest after heavy rain. For a few hours, local people put up with the inconvenience of having to wade through the water as they passed to and fro along the crest. Around 11pm, the dam failed. The water released ponded up against a turnpike road embankment and drowned three people in a cottage between the two earthworks. The road embankment then breached, drowning eight people in a large house and an apprentice sleeping in a flannel mill.

Following reservoir failures in 1925 at Skelmorlie and Dolgarrog resulting in 31 deaths, the Reservoirs (Safety Provisions) Act was passed in 1930. Independent inspections by empanelled 'qualified civil engineers' were required for all large reservoirs. These inspecting engineers had the powers to require works to be carried out 'in the interests of safety'. Some of the early inspectors were eminent consultants such as Sir William Halcrow, W J E Binnie and H J F Gourley. Col. J A Saner the

Engineer and Manager of the Weaver Navigation was a Panel Engineer and carried out inspections for other navigation companies.

Photograph 5: Siphons at Brent Reservoir

As a result of these inspections some reservoirs which were no longer needed were discontinued by cutting through the dams. A large new weir would have been needed to keep Butterley Park Reservoir. Safety in extreme flood events was a key issue to the inspecting engineers. Spillways were improved and sometimes duplicated, as at Townhead where an auxiliary spillway was built over the dam crest in 1934 (Photo1). Headbanks were also raised and wave walls were built along the upstream edge of the crest to provide additional freeboard. Some reservoirs, such as Lower Bittell, had their levels permanently lowered as an alternative. Brent Reservoir, had five large air regulated syphons installed in 1936 to discharge flood flows safely (Photo 5).

With the reduction in freight traffic in the late 19th and 20th centuries, some canals were closed and the demands for water for those remaining reduced. Often other uses were found for the reservoirs. In 1923 the Rochdale Canal reservoirs (Blackstone Edge, White Holme, Hollingworth, Upper and Lower Chelburn, Light Hazzles, Gaddings and Warland) were sold to Oldham and Rochdale Corporations to be converted for drinking water supply purposes. The canal company retained a right to a reduced feed. Wychall Reservoir is now used by Birmingham City Council as a balancing pond to regulate the flow of the River Rea. Many are used by new owners for amenity purposes.

Aldenham in Hertfordshire is used for boating and fishing and has a rare breeds farm, children's adventure and toddlers play areas and a 'Winnie the Pooh' trail. The Grand Union Canal Co. itself formed a subsidiary, Grandion, which in 1936 converted Ruislip Reservoir into a lido.[11]

Photograph 6: 'Tampion' valve plug, removed during works at Elton Reservoir

The canal system was nationalized in 1947 and is now managed by British Waterways, a public corporation responsible to Defra in England and Wales and the Scottish Government in Scotland.

British Waterways is responsible for 91 reservoirs with an average age of 205 years. They are listed in Table 1. The largest by volume is Loch Dochfour/Ness, containing more than 100,000,000 m^3 . When Telford constructed the Caledonian Canal he raised the level of Loch Ness, causing it to be regarded as a reservoir in the terms of the Act, although the impounding works comprise canal embankments, navigation locks and river weirs rather than a dam. The largest 'normal' reservoir is Cobbinshaw also in Scotland, containing 3,544,000 m^3. In England, Killington Reservoir on the Lancaster Canal is the biggest, holding 3,238,210 m^3. There are no longer any canal reservoirs in Wales. With a 25 m headbank, Winterburn Reservoir has the highest dam. The longest is Southfield in Yorkshire with a dam 2.5 km (1 ½ miles) in length. The canal system is now busy with leisure traffic and water demands have never been higher.

Table 1 British Waterways reservoirs in descending order of volume

Reservoir	Canal	Date completed	Height of dam (m)	Length of dam(s) (m)	Capacity (m^3)
Loch Dochfour	Caledonian	1828	8.0	1,150	100,000,000
Loch Lochy	Caledonian	1845	9.1	650	46,300,000
Cobbinshaw	Union	1822	8.1	290	3,544,000
Hillend	Monkland	1798	9.7	550	3,515,400
Killington	Lancaster	1819	15.6	240	3,238,210
Rudyard	Trent & Mersey	1800	10.5	155	2,949,700
Loch Oich	Caledonian	1820	4.0	2,700	2,500,000
Belvide	Shropshire Union	1833	14.0	1,025	2,196,000
Brent	Grand Union	1835	9.4	500	1,632,330
Loch an Add	Crinan	1809	10.5	165	1,506,000
Foulridge Lower	Leeds & Liverpool	1798	8.5	745	1,488,020
Combs	Peak Forest	1806	17.5	320	1,484,000
Rotton Park	BCN	1828	14.0	350	1,463,800
Bosley	Macclesfield	1834	18.5	450	1,457,810
Black Loch	Monkland	1792	5.3	90	1,374,000
Toddbrook	Peak Forest	1840	23.8	310	1,288,000
Winterburn	Leeds & Liverpool	1891	25.0	177	1,243,790
Naseby	Grand Union	1812	9.1	500	1,140,000
Wilstone	Grand Union	1803	7.6	1,350	1,127,000
Cam Loch	Crinan	1801	8.5	118	1,068,000
Bittell (Upper)	Worcs & Birmingham	1832	14.8	255	1,022,400
Daventry	Grand Union	1804	10.7	600	933,000
Knypersley	Trent & Mersey	1827	13.9	240	930,280
Boddington	Oxford	1820	11.5	1,390	930,000
Elton	M/cr Bolton & Bury	1808	8.8	600	923,000
Loch Clachaig	Crinan	1809	7.8	60	850,000
Birkenburn	Forth & Clyde	1820	14.5	350	780,600
Gailey (Lower)	Staffs & Worcs	1855	8.0	980	778,400
Lilly Loch	Monkland	1836	9.2	464	763,000
Carr Mill	St. Helens	1866	14.0	220	739,000
Townhead	Forth & Clyde	1773	7.2	167	722,000
Whitemoor	Leeds & Liverpool	1840	9.5	960	637,890
Knighton	Shropshire Union	1832	7.7	250	632,000
Rishton	Leeds & Liverpool	1832	10.4	485	614,619
Stanley	Trent & Mersey	1840	13.0	185	610,980
Moorgreen	Nottingham	1794	12.0	230	596,000
Southfield	Aire & Calder	1890	2.8	2,500	555,000

Reservoir	Canal	Date completed	Height of dam (m)	Length of dam(s) (m)	Capacity (m^3)
Saddington	Grand Union	1799	8.8	240	544,000
Knipton	Grantham	1796	12.0	220	543,000
Daill Loch	Crinan	1930	8.1	116	504,000
Gleann Loch	Crinan	1809	10.4	116	495,000
Foulridge Upper	Leeds & Liverpool	1866	11.7	220	492,330
Startopsend	Grand Union	1814	6.4	1,275	484,000
Loch na Faoilinn	Crinan	1814	5.6	62	465,000
Barrowford	Leeds & Liverpool	1885	8.8	915	453,850
Sulby	Grand Union	1812	6.4	143	376,000
Earlswood (Windmill Pool)	Stratford	1815	5.4	1,160	370,000
Tardebigge	Worcs & Birmingham	1822	17.9	460	369,640
Gailey (Upper)	Staffs & Worcs	1855	6.2	1,310	356,060
Earlswood (Engine Pool)	Stratford	1815	5.8	380	345,000
Sutton	Macclesfield	1837	15.5	180	324,343
Drayton	Grand Union	1804	7.3	310	324,000
Olton	Grand Union	1798	5.8	180	319,800
Hurleston	Shropshire Union	1840	11.0	840	319,600
Butterley	Cromford	1848	9.6	270	311,000
Slaithwaite	Huddersfield Narrow	1797	16.9	120	310,000
Harthill	Chesterfield	1796	7.5	400	294,000
Denton	Grantham	1799	8.0	1,400	278,000
Welford	Grand Union	1838	9.1	210	274,000
Marsworth	Grand Union	1806		540	253,000
Clattercote	Oxford	1787	13.1	190	250,000
March Haigh	Huddersfield Narrow	1838	21.0	280	240,070
Pebley	Chesterfield	1776	9.5	152	222,000
Bittell (Lower)	Worcs & Birmingham	1811	8.0	260	196,400
Tringford	Grand Union	1814	6.1	415	195,000
Swellands	Huddersfield Narrow	1810	9.6	190	182,750
Weston Turville	Grand Union	1799	6.7	710	180,750
Fens (Upper Pool)	Stourbridge	1815	13.0	230	172,050
Loch nam Breac Buidhe	Crinan		4.0	101	170,000
Calf Heath	Staffs & Worcs	1779	5.8	480	165,640
Redbrook	Huddersfield Narrow	1815	18.6	275	165,000

Reservoir	Canal	Date completed	Height of dam (m)	Length of dam(s) (m)	Capacity (m^3)
Slipper Hill	Leeds & Liverpool	1832	6.5	480	163,370
Napton	Grand Union	1814	6.1	850	163,000
Fens (Middle Pool)	Stourbridge	1815	2.7	150	123,180
Loch na Bric	Crinan	1930	4.5	131	123,000
Cofton	Worcs & Birmingham	1815	11.2	160	115,410
Earlswood (Terry's Pool)	Stratford	1815	2.7	230	105,000
Trench	Shropshire Union	1804	4.0	900	92,360
Wormleighton	Oxford	1788	4.6	230	77,300
Loch a' Bharain	Crinan		3.8	150	63,100
Black Moss	Huddersfield Narrow	1835	5.5	480	58,190
Diggle	Huddersfield Narrow	1830	12.6	155	55,690
Fens (Lower Pool)	Stourbridge	1815	3.4	300	51,560
Codnor Park	Cromford	1796	6.0	150	45,000
Lochan Duin	Crinan		3.0	40	43,600
Sparth	Huddersfield Narrow	1810	5.4	200	36,820
Brunclough	Huddersfield Narrow	1848	10.5	230	31,500
Mill Shrub Pool (Bittell)	Worcs & Birmingham	1811	4.5	180	31,190
Dimmingsdale	Staffs & Worcs	<1810	3.2	35	27,100
Tunnel End	Huddersfield Narrow	1798	12.0	168	6,280

Photograph 7: Tea pot lid valve exposed for works at Rotton Park Reservoir

Most canal reservoirs are accessible to the public. Many are situated in scenic areas and are well worth a visit. Many original features survive. Some are normally submerged such as the wooden plug valves ('tampions') at Elton Reservoir, near Bury (Photo 6) or the 'tea pot lid' valves at Rotton Park (Photo 7). Barrowford Reservoir in Lancashire is little changed since it was raised in 1896 and the original intake, pitching, drop-shaft weir (Photo 8) and the operating mechanism for the draw-off valve can be seen.

Photograph 8: Spillway shaft at Barrowford Reservoir

In conclusion, the canal reservoirs provide a significant group of older dams, many of which are still in use for their original purpose. British Waterways maintains them in good order, doing work as required to keep them in a safe condition in accordance with the standards of today.

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